

GULIYAYEV, R.A.; LIVSHITS, M.A.

Width of the H Ca⁺ line in spicules. Astron. zhur. 22 no.4:854-856
Jl-Ag '65. (MIRA 18:8)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

LIVSHITS, M.A., inzh.; ZOLICAVIN, B.H., inzh.; CHUKVIASKIY, N.M., inzh.;
MOSEYEV, G.I., kand. tekhn. nauk

Study of the operation of a once-through type PK-38 boiler in
a block with a K-160-130 turbine at rapid pressure changes.
Teploenergetika 12 n. 7: 6-10 1965. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy teploekhnicheskii
institut i Yuzhnoye otdeleniye Gosudarstvennogo tresta po organi-
zatsii i ratsionalizatsii rayonnykh elektrostantsiy i setey.

L 31227-66 -- EWP(f)/T-2 WW

ACC NR: AP6022808

SOURCE CODE: UR/0096/66/000/003/0019/0024

AUTHOR: Livshits, M. A. (Engineer); Zolotavin, B. N. (Engineer); Chukvinskiy, M. M. (Engineer); Moseyev, G. I. (Candidate of technical sciences)

ORG: ORGRES, VTI-YuO

27
B

TITLE: Investigation of the applicability of direct-flow boiler PK-38 in a unit with turbine K-160-130 and reliability of its operation with sharp load changes

SOURCE: Teploenergetika, no. 3, 1966, 19-24

TOPIC TAGS: steam boiler, industrial heat exchanger/PK-38 steam boiler

ABSTRACT: Results are presented from experimental investigations of the dynamic characteristics as to steam consumption and temperature conditions of the PK-38 direct-flow boiler with gas as a fuel. When the automatic controls are working properly, load changes of up to 37% of nominal can be withstood, with stable heating surface. The heat exchanger surfaces may undergo changes of about 40°C from ordinary operating temperature. Load changes of up to 80t/hr per minute can be performed: without forcing, the time to 90% assigned load after sudden change is 65-75 sec; with double forcing for 30 sec, the time to 90% load is 40 sec. The unit can pick up a 35-Mw power system in 10-12 sec with no forcing, a 45-Mw system with forcing, without changing steam pressure over 10 bar. The injection used in the initial portion of the heating tract is effective in increasing the reaction rate, but causes rapid temperature fluctuations of the metal in the area, which should be further investigated.

Orig. art. has: 6 figures and 1 table. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 005

Card 1/1 BLE

UDC: 621.181.91.001.45

0915 0787

L 36231-66 ZHI(m)/I

ACC NR: AP6024519

SOURCE CODE: UR/0386/66/004/002/0068/0071

AUTHOR: Kirzhnits, D. A.; Liyshits, M. A.

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

TITLE: Contribution to the theory of nonrenormalizable interactions

SOURCE: Zh eksper i teor fiz. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 2, 1966, 68-71

TOPIC TAGS: particle scattering, Schroedinger equation, perturbation theory

ABSTRACT: To check whether the difficulties in the theory of nonrenormalizable interactions (NRI) is due to inability to solve the corresponding dynamic equations outside the framework of perturbation theory or whether these difficulties demonstrate that the equations themselves are unsuitable, the authors use a method previously developed by one of them (Kirzhnits, ZhETF v. 49, 1544, 1965) to analyze the scattering of two nonrelativistic particles in an axiomatic differential (with respect to charge) formulation. The scattering matrix element of the interaction Lagrangian is chosen in the in-representation and the scattering phase shift is determined from an equation derived by L. D. Landau (in: Theoretical Physics in the Twentieth Century, Interscience, 1960, p. 245). Solutions for this equation, which are not derivable from the Schroedinger equation, are found to exist and are obtained. It is shown that a similar situation arises in relativistic scattering with four-fermion interaction,

Card 1/2

L 36231-66

ACC NR: AP6024519

2

provided allowance is made for the two-particle intermediate states only. It is deduced from the results that, at least within the framework of the models considered, the NRI problem has a singular solution free of the difficulties inherent in these interactions and non-analytic in the charge. This solution cannot be obtained from the dynamic equations and arises only when the problem is axiomatically formulated. The results confirm the likelihood of the point of view that the dynamic theory is not suitable for a description of such interactions. The authors thank the participants of the theoretical seminars of the Physics Institute im. P. N. Lebedev, the Mathematics Institute im. V. A. Steklov, and the Joint Institute of Nuclear Research for useful discussions. Orig. art. has: 7 formulas.

SUB CODE: 20/ SUBM DATE: 05May66/ ORIG REF: 002/ OTH REF: 005

Card

2/2 *lll*

ACC NR: AP6027546

SOURCE CODE: UR/0384/66/000/003/0036/0041

AUTHOR: Livshits, M. A. (Candidate of physico-mathematical sciences)

ORG: none

TITLE: Active regions on the sun

SOURCE: Zemlya i vseennaya, no. 3, 1966, 36-41

TOPIC TAGS: solar activity, solar astronomy, solar atmosphere, solar chromosphere, solar corona, solar cycle, solar phenomena, solar photosphere, solar radiation

ABSTRACT: The structure of the solar atmosphere and solar activity are briefly described in popular terms. The following specific topics are considered: corona, chromosphere, photosphere, sun spots, the mechanism associated with the formation of active regions, magnetic fields of the active regions, convection effects, and the propagation and attenuation of solar sound waves. High energy light quanta and particles of various energies which arrive from the sun interact with the external atmosphere of the earth. A sharp change in corpuscular and x-ray radiations due to active solar regions produces a series of geophysical phenomena which result in magnetic storms, aurora borealis, disruption of radio communications and increased radiation hazards to astronauts. Orig. art. has: 6 figures.

SUB CODE: 03/ SUBM DATE: none/ ORIG REF: 004

Card 1/1

ACC NR: AP6028786

SOURCE CODE: UR/0033/66/043/004/0718/0726

AUTHOR: Livshits, M. A.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves,
Academy of Sciences, SSSR (In-t zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln Akademii nauk SSSR)

TITLE: Line widths in spicules

SOURCE: Astronomicheskiy zhurnal, v. 43, no. 4, 1966, 718-726

TOPIC TAGS: hydrogen spectral line, helium spectral line, ionized calcium, solar
eclipse, chromospheric spicule, Doppler principle, *LINE WIDTH, SOLAR SPICULE,
HYDROGEN LINE*

ABSTRACT: Widths of spectral lines of hydrogen, helium, and ionized calcium have
been observed during 1964 and 1965 with a coronagraph developed at the Institute of--
Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves. These lines
belonged to spicules in the upper chromosphere and were located in spectral range
3889--10830 Å. The Ca⁺ line of 3968 Å split into a series of narrow lines. All
lines observed were taken from chromospheric elements whose dimensions were about
2000 km in diameter at various altitudes. The width of the hydrogen line H_γ was
0.0001 Å, and the population at that width was determined to be $1.2 \cdot 10^9 \text{ cm}^{-3}$. Line
widths vary from spicule to spicule with large amplitudes. Line
profiles do not agree with Doppler profiles. Various possibilities of explaining the
large line widths in spicules are discussed. Further analysis of the line widths and

Card 1/2

UDC: 523.75

ACC NR: AP6028786

.the form of the profiles made it possible to accept macroscopic motions in spicules with velocities of ≈ 10 km/sec. Tangential velocities in spicules are high. The author expresses thanks to G. M. Nikol'sky and A. A. Bazanov for given unpublished data and R. A. Gulyayev for discussion of the contents of this publication. Orig. art. has: 2 tables and 4 figures.

SUB CODE: 03/ SUBM DATE: 11Jan66/ ORIG REF: 015/ OTH REF: 006

Card 2/2

ACC NR: AR6033097

SOURCE CODE: UR/0269/66/000/007/0056/0056

AUTHOR: Livshits, M. A.; Demkina, L. B.

TITLE: Width of $H\delta$, D_3 and $\lambda 10830$ lines in solar spicules

SOURCE: Ref. zh. Astronomiya, Abs. 7.51.392

REF SOURCE: Solnechnyye dannyye, no. 10, 1965, 55-58

TOPIC TAGS: solar spicule, spectral line, spectral line width, coronagraph /IZMIRAN coronagraph

ABSTRACT: The widths of spectral lines $H\alpha$, D_3 and $\lambda 10830$ in spicules were ... measured on the basis of spectrograms obtained in 1964-1965 with the IZMIRAN coronagraph. Photographs of spectra and typical line profiles are given. The profiles are not Doppler profiles. A flat apex, often with two maxima, is typical for them. Line widths vary sharply from one spicule to another. The width of line $H\delta$ lies within 0.43-0.73 Å. Profiles with $\Delta\lambda \approx 0.56$ Å, belonging, apparently, to elements 2000 km in diameter, and profiles with $\Delta\lambda \approx 0.45$ Å occur most frequently. The widths of D_3 lie within 0.4-0.7 Å, and the value most frequently occurring is that of $\Delta\lambda \approx 0.56$ Å. The width of $\lambda 10830$ is 1.0-1.8 Å, with a

Card 1/2

UDC: 523.77

ACC NR: AR6033097

mean value of $\Delta\lambda \approx 1.45 \text{ \AA}$. The bibliography consists of 6 titles. B. Iopsha.
[Translation of abstract]

SUB CODE: 03/

Card 2/2

ACC NR: AR6028761.

SOURCE CODE: UR/0269/66/000/006/0056/0056

AUTHOR: Livshits, M. A.

TITLE: Convection increases as a mechanism for the formation of areas of activity

SOURCE: Ref. zh. Astronomiya, Abs. 6.51.445

REF SOURCE: Sb. Solnechn. aktivnost'. No. 2. M., Nauka, 1965, 103-107

TOPIC TAGS: solar activity, solar facula, solar spectrum

TRANSLATION: Observations of the contrast of faculae in a continuous spectrum lead the author to conclude that the flux of the continuous radiation areas of activity exceeds the flux of unexcited particles in the solar atmosphere by 3%. For higher layers of the atmosphere heated by various types of waves and radiating primarily in lines, the difference does not exceed one order of magnitude. This phenomenon can be adequately explained if it is assumed that the convection rate in subphotospheric layers of active solar areas increases by 30%, as compared with the unexcited areas. 15 references.
E. Dubov.

SUB CODE: 03

UDC: 523.745

Card 1/1

ACC NR: AP7001506

SOURCE CODE: UR/0033/66/043/006/1135/1142

AUTHOR: Livshits, M. A.; Obridko, V. N.; Pikel'ner, S. B.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, AN SSSR (In-t zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR); State Astronomical Institute im. P. K. Shternberg (Gos. astronomicheskly in-t)

TITLE: Radio emission and atmospheric structure above sunspots

SOURCE: Astronomicheskly zhurnal, v. 43, no. 6, 1966, 1135-1142

TOPIC TAGS: radio emission, sunspot, photosphere, chromosphere, Alfvén wave, solar corona

ABSTRACT: The circularly polarized radio emission on centimeter wave lengths from the regions above sunspots requires the presence of a magnetic field $H \approx 1000$ G and coronal temperature $\approx 10^6$ K. Direct observations of magnetic fields in the photosphere and chromosphere as well as theoretical considerations on intense broadening of a tube of lines of force in rarefied atmospheric layers show that field strength of $H \approx 1000$ G is found only at heights not exceeding 3000 km. This implies that the corona apparently begins at a small height above spots. A model of a radio source is computed using the radio spectrum of sources and data on circular polarization. Hydrostatic density distribution is assumed. The radio data allow reliable determination of temperature on height. The sharp boundaries of the source, its radiation directivity, and its coin-

Card 1/2

UDC: 523.746

ACC NR: AP7001506

vidence with umbrae are also explained. The difference between the chromosphere above the spot and normal chromosphere is associated with small dissipation of Alfvén and accelerated waves in a strong field. The slow (sound) waves fade in the low chromospheric parts, where they do not cause noticeable heating. Apparently only accelerated waves reach the corona, where they are transformed into other types of waves and fade at great heights. From there, the energy is passed by heat conduction to the low parts of the corona responsible for radio emission. Orig. art. has: 2 formulas, 2 figures, and 1 table.

SUB CODE: 03/ SUBM DATE: 22Mar66/ ORIG REF: 016/ OTH REF: 009

Card 2/2

AM#008918

BOOK EXPLOITATION

S/

Livshits, M. A.; Pugachev, V. N.

Probability analysis of automatic control systems. v. 2: Nonlinear systems. Systems of discrete operation (Veroyatnostnyy analiz sistem avtomaticheskogo upravleniya. [t.] 2: Nelineyny*ye sistemy*. Sistemy* diskretnogo deystviya) Moscow, "Sovetskoye radio," 63. 0482 p. illus., biblio., index. 12,000 copies printed.

TOPIC TAGS: automation, probability, automatic control, analog automatic control, digital automatic control, nonlinear system, digital system, random process, nonlinear static element, nonlinear dynamic element, probability analysis, system accuracy, pulsed element, digital element

PURPOSE AND COVERAGE: The book presents a systematic treatise of probability analysis of nonlinear and discrete automatic control systems, random processes in nonlinear static and dynamic analog elements and their characteristics, the principal engineering methods of probability analysis of random processes, and the operating accuracy of nonlinear stationary and nonstationary analog systems. Equations are also derived and the characteristics determined for linear and nonlinear pulsed and digital elements with constant parameters, and methods are shown

Card 1/3

AM4008918

for their calculation. A probability investigation is made of random processes and of the operating accuracy of linear and nonlinear digital systems with constant or variable parameters. The book contains many computation tables and graphs, examples, and summaries of formulas, so as to facilitate the solution of practical problems. The mathematical level is that of students in higher technical educational institutions. The book is intended for many scientific workers, engineers, and undergraduate or graduate students specializing in theory and technology of automatic control and automation. It may also be useful to telemechanics, radio, and radar specialists engaged in statistical research.

TABLE OF CONTENTS [abridged]:

Foreword - - 3

Ch. I. Nonlinear system elements characteristics of random processes at the output of a nonlinear element - - 7

Ch. II. Characteristics of random processes in stationary and nonstationary nonlinear systems - - 138

Ch. III. Characteristics of random processes in systems with random parameters and in systems of semiautomatic control - - 254

Ch. IV. Digital elements - - 276

Card 2/3

AM4008918

Ch. V. Linear digital systems with constant parameters - - 327
Ch. VI. Characteristics of random processes in linear digital systems - - 357
Ch. VII. Characteristics of random processes in nonlinear digital systems. Condi-
tions for equivalence of digital and analog systems - - 435

Literature - - 473

Subject index - - 477

SUB CODE: CP, CG, MM

SUBMITTED: 29Jul63

NR REF SOV: 059

OTHER: 021

DATE ACQ: 14Nov63

Card 3/3

LIVSHITS, M.I. (Moskva)

Convergence of orthogonal series in subsequences of partial sums.
Mat. sbor. 65 no.2:212-227 0 '64. (MIRA 17:11)

A-4

Bc

PROCESSING AND PROPERTY INDEX

Detecting the lipolytic effect of micro-organisms. L. M. KOSOVITS-VLADOVA and M. I. LIV-
 SOVITS (Proc. Inst. Sci. Res. Food Ind. Leningrad,
 1955, 3, No. 3, 22-23).—Comparative tests of
 numerous bacteria, yeasts, and fungi are recorded.
 Detection of free acids in the fat fraction of the
 inoculated medium gives best results but is less
 convenient than the alkaline test. Lipolysis may
 be detected by the formation of a transparent drop
 of soap solution in the turbid medium on addition of
 1 drop of 15% aq. KOH. Ch. Abs. (p)

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

RELEASING OFFICE

LONDON 24

1954000 141 011 001

RELEASING OFFICE

LONDON 24

1954000 141 011 001

PROCESSES AND PROCEDURES

1ST AND 2ND EDITIONS

PROCESSES AND PROCEDURES

CA

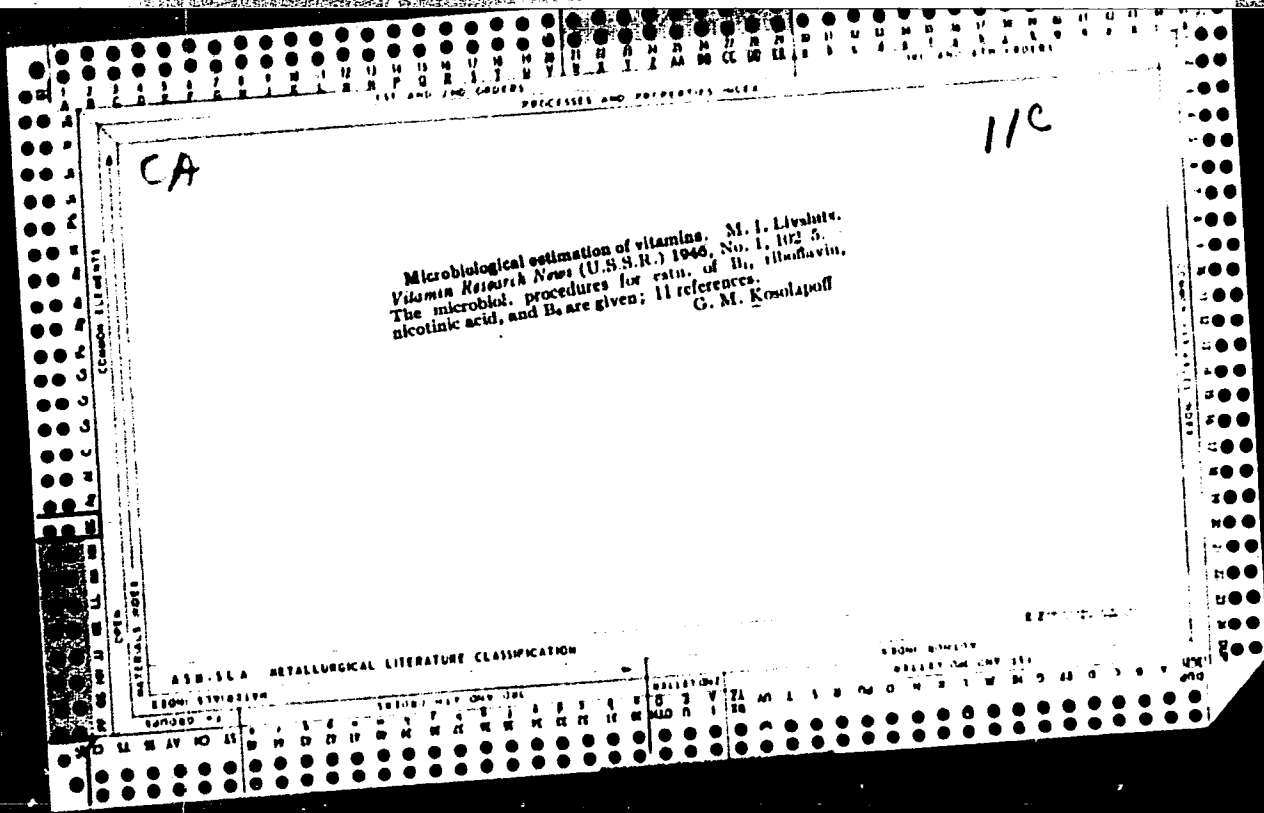
Biosynthesis of vitamin B₁₂ by yeast M. I. L. vobita.
Proc. Soc. Exp. Vitamin Research U. S. S. R. 3, No. 1, 184-8 (1941).--Tests with brewers', bakers' and distillers' yeasts and with the wild yeasts *Saccharomyces logos* and *Torula utilis* revealed a general ability to synthesize vitamin B₁₂ (I), with some quant. differences. The culture medium was a nutrient salt soln. with 5% sucrose. In cultures of *S. cerevisiae* a pine needle ext. (sterilized 6 hours at 120°) was added as bio. The most active yeasts in synthesis of I were *T. utilis* and com. brewers' yeast; next were *S. logos*, brewers' yeast "U" and bakers' yeast. Distillers' yeast (strain XII from Germany) was least active. No definite relations were observed between growth intensity and N content or between growth intensity and synthesis of I. Julian F. Smith

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND EDITIONS

1ST AND 2ND EDITIONS

1ST AND 2ND EDITIONS



Conditions favoring the formation of ergosterol in yeast
culture. M. I. Livshits and L. I. Libert. *Trudy Vsesoyuznogo
Nauchno-Issledovatel'skogo Instituta Khimii i Fiziki
Yeast-fermentation. Trudy. Inst. 4, 62-6(1963).—Re-*
during the rate of aeration from 14 to 6 l./min. increased the
yeast ergosterol 20-90%; increases in N, P, and sugar
above the established concn. lowered it. Seed yeast (40%)
is optimum for the cultivation of yeast for purposes of in-
creased ergosterol yield.
B. S. Leythe

U S S R

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7

12/25/73, M.T.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7"

LIVSHITS, M.I.

Uniqueness of expansion in a trigonometric series for summing
methods. Vest. Mosk. un. Ser. 1:Mat., mekh. 19 no.3:15-24 My-Je
'64. (MIRA 17:6)

1. Kafedra teorii funktsii Moskovskogo universiteta.

LIVSHITS, M.I.

Convergence of orthogonal series in subsequences of partial sums.
Vest. Mosk. un. Ser. 1: Mat., mekh. 19 no.6:61-64 N-D '64.

(MIRA 18:2)

1. Kafedra teorii funktsiy i funktsional'nogo analiza Moskovskogo universiteta.

LIVSHITS, M.Kh.

Physical state of the abyssal matter of the earth's crust and upper mantle in the Kurile Island region of the Pacific belt.
Geol. i geofiz. no.1:11-20 '65. (MIRA 18:6)

i. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR, poselok Novo-Aleksandrovsk.

LIVSHITS, M.Kh.

New concepts concerning the tectonics of Sakhalin in the light of geophysical data and some considerations regarding gas and oil potentials. Geol. i geofiz. no.6:49-59 '63.

(MIRA 19:1)

1. Sakhalinskoye territorial'noye geologicheskoye upravleniye, Okha-na-Sakhaline. Submitted July 30, 1962.

LIVSHITS, M.L.

Clinical aspect of the prodromal period of infectious hepatitis
in children. Vop.okh.mat.i det. 8 no.3:8-11 Mr '63.

(MIRA 16:5)

1. Iz kafedry epidemiologii (zav. - prof. V.A. Bashenin)
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo insti-
tuta (rektor - prof. A.Ya. Ivanov).

(HEPATITIS, INFECTIOUS)

LIVSHITS, M.L. (Boyislav, L'vovskoy oblasti)

Ultraviolet rays in the compound treatment of diseases of the lumbosacral region of the peripheral nervous system. Vrach. delo no.6: 135-136 Je '61. (MIRA 15:1)

1. Mediko-sanitarnaya chast' neftyanikov i gorodskoye bol'nichno-poliklinicheskoye ob'yedineniye.

(ULTRAVIOLET RAYS--THERAPEUTIC USE)
(NERVES, SPINAL DISEASES)

LIVSHITS, M.L. (Borislav, L'vovskoy oblasti)

Case of tabetic arthropathy. Vrach. delo no.12:150 D '61.
(MIRA 15:1)

(JOINTS--DISEASES)

LIVSHITS, M.L.

Gummatous hepatitis simulating cancer of the stomach. Vrach.delo
no.10:137-138 0 '62. (MIRA 15:10)

1. Borislavskoye gorodskoye bol'nichno-poliklinicheskoye
ob'yedineniye.

(LIVER—SYPHILIS) (STOMACH—CANCER)

LIVSHITS, M.L.

Bicalin in the compound treatment of peptic ulcer. Vrach.delo
no.12:116-117 D '62. (MIRA 15:12)

1. Kurort "Truskavets".
(PEPTIC ULCER) (DRUGS)

LIVSHITS, M.L. (Borislav)

Allergic dermatitis caused by the intake of poliomyelitis
vaccine. Vrach. delo no.8:136 Ag'63. (MIRA 16:9)

1. Detskoye bol'nichno-poliklinicheskoye ob'yedineniye, Borislav.
(SKIN—DISEASES) (VACCINATION)
(POLIOMYELITIS—PREVENTION)

LIVSHITS, M.L. (Borislav)

Clinical evaluation of a knee phenomenon. Vrach. delo no.3:134
Mr '64. (MIRA 17:4)

LIVSHITS, M.L., aspirant

Infectiousness of epidemic hepatitis in various stages of the
disease. Trudy IIGMI 72:76-83 '63. (MIEM 17:4)

1. Kafedra epidemiologii (zov. - prof. V.I. Bashenia) Leningradskogo
sanitarno-gigiyenicheskogo meditsinskogo instituta.

2189. LIVSHITS, M. L. AND MOGILEVCHIK, Z. K.

Sanitarnaya Pamyatka Traktoristu Minsk, Gosizdat BSSR, Red. Nauch.-Tekhn.
Lit., 1954 8s. 17sm. (M-Vo Zdravookhraneniya BSSR. Kafedra Gигieny
Minskogo Med. In-Ta). 25.000 EKZ. Bespl. -
(54-56546)

613.6:631.3

LIYSHITS, M.L.

Joint plenary session of the administration of the White Russian
Society of Hygienists and the Council on Public Health and
Epidemiology of the Ministry of Public Health of the White
Russian S.S.R. Gig. i san. 23 no.8:84-85 Ag '58 (MIRA 11:9)
(WHITE RUSSIA--PUBLIC HEALTH)

LIVSHITS, M. I., OSHCHINA, P. V., KISELEVICH, B. P., SOLOVNEV, A. F.,
MOGILEVCHIK, Z. K.

"Hygienic Problems of Transformation of the Poleskaya Lowland."

report submitted at the 13th All-Union Congress of hygienists, Epidemiologists
and Infectionists, 1959.

LIVSHITS, M.L. (Moscow); KISELEVA, N.A. (Moscow)

Methods for the chemical analysis of printing-ink. Poligr.proiz. no.5:
(MLRA 6:6)
1-25 My '53. (Printing-ink)

LIVSHITS, M.L.; KOLOTUKHIN, I.N.; KISELEV, V.S., doktor khimicheskikh nauk, professor, redaktor; RAYNES, I.S., redaktor; MEL'NIKOVA, N.V., tekhnicheskiy redaktor

[Painting and finishing articles for mass consumption] Okraska i otdelka izdelii massovogo potrebleniia. Pod red.V.S. Kiseleva Moskva, Gos.izd-vo mestnoi promyshl.~~ESFSR~~, 1955. 295 p.
(Painting, Industrial) (MLRAS:10)

SAPGIR, I.N., doktor tekhn. nauk; IVANOVA, A.A.; GOL'DBERG, M.M.;
SAKHARNOV, A.V.; LUBMAN, A.I.; SVERDLIN, M.S.; TYURIN, B.F.
Prinimali uchastiye: PLIPLINA, A.I.; IOFFE, M.Ya.; LIVSHITS,
M.L., red.; ZAZUL'SKAYA, V.F., tekhn. red.

[Paint materials; raw materials and intermediate products;
handbook] Lakokrasochnye materialy; syr'e i poluprodukty;
spravochnik. Pod red. I.N.Saggira. Moskva, Gos.nauchno-
tekh.nzd-vo khim. lit-ry, 1961. 506 p. (MIRA 14:12)
(Paint materials)

LIVSHITS, M.L.

Standardization plan for paint materials for 1962. Lakokras.mat.1
ikh prim. no.2:70-71 '62. (MIRA 15:5)
(Paint materials--Standards)

LIVSHITS, M.L.

Plan for developing standards and specification for 1961.
Lakokras. mat. 1 ikh prim. no.3:58-59 '61. (MIRA 14:6)
(Paint materials--Standards)

LIVSHITS, M.L.

Classification of lacquers and paints. Lakokras. mat. 1 ikh
prim. no.6:78-80 '61. (MIRA 15:3)
(Lacquer and lacquering) (Paint materials)

GROZOVSKAYA, A.M.; LIVSHITS, M.L.

Systems of testing and quality evaluation of paint materials.
Lakokras.mat.1 ikh prim. no.3:66-67 '62. (MIRA 15:7)
(Paint materials--Testing)

S/276/63/000/002/024/052
A052/A126

AUTHORS: Grozovskaya, A.M., and Livshits, M.L.

TITLE: Testing system and quality evaluation of paint materials

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 2, 1962, 103, abstract 2B545 (Lakokrasochn. materialy i ikh primeneniye, no. 3, 1962, 66-67)

TEXT: The quality control in serial paint production consists in testing the characteristics provided for by the relevant standards and specifications. In the process of development and introduction of paint materials new and little studied additional testing is necessary of physico-chemical, mechanical, painting, protecting and decorative properties (for instance, oil paints are tested for the color and shade, degree of rubbing, covering power, drying time, film hardness, its impact and bending strength, water resistance, weather resistance, resistance to 3% NaCl solution, stability in the artificial climate box). Primers are tested additionally for viscosity at 20°C by B3-1(VZ-1) and B3-4(VZ-4) dilution percentage, dry-residue content, adhesion by the grid method, resistance of the film to

Card 1/2

Testing system and quality...

S/276/63/000/002/024/052
A052/A126

temperature changes, yielding to grinding and polishing, stability in moisture chamber. Primers are not tested for covering power. For outside enamels additional tests for spilling capacity covering power and stability in the artificial climate box are recommended. For enamels used for coating products intended for tropical service additional tests are recommended for stability of coatings by the "tropic I and II" cycle simulating conditions of the moist tropical climate of coastal and industrial regions. To evaluate the quality of new painting materials depending on their purpose, also tests of their chemical and thermal stability, resistance to gasoline, stability in hot water, electrotechnical properties, solidification degree of enamels etc, are carried out. GOST numbers and specifications containing descriptions of testing methods are given.

L. Kamionskiy

(Abstracter's note: Complete translation.)

Card 2/2

LIVSHITS, M. I.

Standards for the paint industry adopted from 1959 to 1961.
Lakokras.mat. i ikh prim. no.4:72-75 '62. (MIRA 16:11)

LIVSHITS, M.L.; LYUBALINA, D.I.

Investigating the properties of the PKhV-715 make perchloroethyl
enamel paints. Lakokras mat. i ikh prim. no.3:42-44 '63.
(MIRA 16:9)

(Protective coatings)

LIVSHITS, M.L.; ZHUKOVA, A.D.; VASYUKOVA, A.N.

Standards and specifications. Lakokras. mat. i ikh prim. no.5:
71-81 '63. (MIRA 16:11)

LIVSHITS, M

IA 23/49T33

USSR/Engineering
Engines, Diesel
Marine Engines

Jun 48

"Trials of the ZD-6 Marine Diesel Engine," M.
Livshits, Engr, 3 pp

"Morskoy Flot" No 6

Describes trials of subject engine (see 39T44).

23/49T33

LIYSHITS, M.L., inzhener; KOLOGOV, B.A., retsentsent, kandidat tekhnicheskikh nauk; VOSKRESENSKIY, N.N., inzhener, redaktor.

[The D6 series high-speed diesel engines] Bystrokhodnye dizeli D 6; v pomoshch' mekhanikam i motoristam. Izd. 2-e, dop. i ispr. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 262 p.
(Diesel engines) (MIRA 7:12)

LIVSHITS, M.L., inzh.; KOLOSOV, B.A., kand. tekhn. nauk, retsenzent;
VOSKRSENSKIY, N.N., inzh., red.; TIKHONOV, A.Ya., tekhn. red.

[High-speed D6 diesel; a manual for mechanics and machinists]
Bystrokhodnye dizeli D6; v pomoshch' mekhanikam i mashinistam.
Izd. 3. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1956. 263 p. (MIRA 11:7)

(Diesel engines)

DEYCH, R.S., inzhener; LIVSHITS, M.L., inzhener.

The VES-4 mobile electric power station. Mekh.stroi. 13 no.10:
20-22 0 '56. (MLRA 9:11)

(Electric power plants)

LIVSHITS, M. L.

ARTEM'YEV, Ye.I.; VEGERA, N.L.; SHUMILO, I.A.; VOLKOV, V.M.; PUL'MANOV, N.V.,
kandidat tekhnicheskikh nauk, retsenzent; LIVSHITS, M.L., inzhener,
redaktor; UVAROVA, A.F., tekhnicheskiy redaktor

[D-6 diesel engine; installation, assembly and operation] Dizel'
D6; ustroistvo, montazh i ekspluatatsiia. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1957. 190 p. (MLRA 10:10)
(Diesel engines)

LIVSHITS, M.L.
KRASIK, M.B.; LIVSHITS, M.L.

Limiting the idle time of electric drives in generator-
motor system lathes. Prom.energ. 12 no.9:21-22 S '57.

(MIRA 10:10)

(Electric driving)

25(2)

PHASE I BOOK EXPLOITATION

SOV/3272

Livshits, Moisey L'vovich

Tekhnicheskaya ekspluatatsiya i remont dvigateley vmutrennego sgoraniya (Operation and Repair of Internal Combustion Engines) Moscow, Mashgiz, 1959. 149 p.
Errata slip inserted. 20,000 copies printed.

Reviewers: Subject Commission of the Leningrad Machine-Building Technical School (S. Z. Shifrin, Engineer), and V. Ya. Popov, Candidate of Technical Sciences; Ed.: Yu. B. Morgulis, Candidate of Technical Sciences; Ed. of Publishing House: Ye. Ya. Savel'yev; Tech. Ed.: V. D. El'kind; Managing Ed. for Literature on General Technical and Transport Machine Building: V. I. Kubarev, Engineer.

PURPOSE: This textbook is intended for students at tekhnikums. It will be of interest to mechanics and operators of diesel engines.

COVERAGE: This book presents the requirements for the assembly of diesels and the rules for operation and servicing of same. Causes of operation failure and wear of parts are discussed. Organization and procedures in repair are described and latest techniques indicated. No personalities are mentioned. There are 16 Soviet references.

Card 1/5

Operation and Repair (Cont.)

80V/3272

TABLE OF CONTENTS:

Preface

3

OPERATION OF INTERNAL COMBUSTION ENGINES

Ch. I. Requirements for the Operation of Internal Combustion Engines	5
1. Requirements for engine room equipment	5
2. Requirements for the assembly of the engine and its accessories	8
3. Requirements for safety procedures	12
4. Organizing supervision of the engine operation	14
Ch. II. Readyng the Engine for Operation	23
5. Preparation for start	23
6. Test start, and checking the readiness of the engine for operation	26
7. Starting, warming up, and stopping the engine	28
8. Defects in engine during start, their causes, and elimination	30
9. Requirements for fuel and lubricants	33
10. Determining technical-economical indices of a diesel power plant	35

Card 2/5

Operation and Repair (Cont.)

SOV/3272

Ch. III. Operation of an Engine Under Various Conditions	38
11. Standardized power stations with internal combustion engines	38
12. Requirements for servicing of engines	42
13. Special characteristics of servicing an engine under various conditions	49
14. Supervision of the operation of the engine	53
15. Automation of control	55
16. Possible troubles in operation of the engine, their causes, and elimination	61

REPAIR OF INTERNAL COMBUSTION ENGINES

Ch. IV. Organization of Repair Work	66
17. Types of repair	66
18. Determining extent of a repair	70
19. Dismounting an engine	71
20. Determination of wear and tear of parts	75
21. Standard repair works	76

Card 3/5

Operation and Repair (Cont.)

SOV/3272

22. Drawings and operator instruction sheets for repair work	77
23. Safety techniques for disassembly and repair of an engine	79
Ch. V. Making Spare Parts	82
24. Nomenclature of spare units and parts	82
25. Methods of producing spare parts	84
26. Storage of spare units and parts	85
Ch. VI. Reconditioning of Parts	87
27. Basic types of wear	87
28. Increasing the life of parts	92
29. Reconditioning worn parts	97
30. Reconditioning damaged parts	109
31. Inspection of quality of reconditioned parts	117
Ch. VII. Assembling Engine	120
32. Organization of assembly work	120
33. Assembly procedures	122
34. Checking quality and the assembly instruction sheet	132

Card 4/5

Operation and Repair (Cont.)	SOV/3272	
Ch. VIII. Testing and Delivering Engines		135
35. Running test of the engine after repair		135
36. Delivery tests		139
37. Storage and removal from storage		144
Bibliography		147
AVAILABLE: Library of Congress (TJ795.L57)		

Card 5/5

VK/lgb
4-26-60

LYUCHETS, Moisey L'vovich

Bystrokhodnyye dizeli dC v pomoshch' mekhanikam i
mashinam. Izd. 4. Moskva, Mashgit, 1966.
262 p. illus., diagrs., graphs, tables.

KUNITSYN, N.M.; LIVSHITS, M.M., redaktor; GOLYATKINA, A.G., redaktor;
MIKHAYLOVA, V.V., tekhnicheskii redaktor

[Gas flame surface hardening of rolling mill rollers] Gasoplamen-
naia poverkhnostnaia zakalka prokatnykh valkov. Moskva, Gos. nauchno-
tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 70 p.
[Microfilm] (MLRA 7:10)

(Rolling mill machinery)
(Metals--Hardening)

8(6)

SOV/112-59-3-4746

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 62 (USSR)

AUTHOR: Livshits, M. M.

TITLE: Experience With Transformer Oils in the Uzbekenergo Power System
(Opyt ekspluatatsii transformatornykh masel v sisteme Uzbekenergo)

PERIODICAL: V sb.: Materialy 1-y Uzb. nauchno-tekhn. konferentsii po izolyatsii
i zashchite ot perenapryazheniy. Farkhadges-Kayrak-Kumges, 1957, pp 80-85

ABSTRACT: Experience with oxidation control of transformer oil is reported. An
experience with oil rejection on the grounds of water-soluble acids is
described, as well as an experience with activation of silica gel by gaseous
ammonia; the latter steps up the silica gel activity by 3-4 times.

V. V. M.

Card 1/1

5.2200, 18.7400

78225
SOV/80-33-3-26/47

AUTHORS: Lipin, A. I., Livshits, M. M.

TITLE: The Effect of Organic Admixtures on the Rate of Nickel Reduction in Acid and Alkaline Solutions

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 3, pp 658-662 (USSR)

ABSTRACT: Samples of type 20 steel were chemically nickel-plated in acid solutions (30 g/liter nickelous chloride and 10 g/liter calcium hyposulfite) and in alkaline solutions (20 g/liter nickelous chloride and 10 g/liter calcium hyposulfite) containing various organic additives, and the effect of the latter on the rate of nickel reduction was studied. The plating in acid solution was made at 90-92° C, initial pH = 5.5-6.0; in alkaline solution the conditions were 86-87° C, pH = 9.0-9.5. The rate of nickel reduction was determined by weighing the samples; potentiometer LP-5 was used in the measuring of pH. The effect of

Card 1/3

The Effect of Organic Admixtures on the
Rate of Nickel Reduction in Acid and
Alkaline Solutions

78225
SOV/80-33-3-26/47

the following additives was investigated: saturated monocarboxylic acids (formic, acetic, and isovaleric); saturated and unsaturated dicarboxylic acids (malonic, succinic, adipic, azelaic, maleic); hydroxy acids (malic, tartaric); and amino acids (aminoacetic, α -aminosuccinic). The addition of monocarboxylic acids (particularly acetic acid) to the acid plating solution gave a high rate of nickel reduction during the first hour of plating. In case of dicarboxylic acids, the rate of reduction decreased with increasing number of methylene groups in the acid molecule. The highest rate of nickel reduction was obtained with aminoacetic acid. The addition of malic acid gave a fair rate of reduction, and that of tartaric acid, a very low rate. The pH decreased during plating from 6 to 0.5, depending on the additive. In case of the two most effective acids, acetic and aminoacetic, pH decreased to 3.5-4 during the first two hours and

Card 2/3

The Effect of Organic Admixtures on the
Rate of Nickel Reduction in Acid and
Alkaline Solutions

78225
SOV/80-33-3-26/47

remained for a long time at this level: The above acids evidently acted as buffers. In alkaline plating solutions, the nature of the additive had no substantial effect on the rate of nickel reduction, with the exception of maleic acid which gave a very low rate of reduction. The pH decreased from 9.5-10 to 7-8 for all of the investigated acids; hence, their action in alkaline solutions cannot be explained by a buffering effect. There are 2 figures; 2 tables; and 3 references, 1 U.S., 2 Soviet. The U.S. reference is: C. Mehjers, A. Brenner, Plating, 44, 12, 1297-1305 (1957).

SUBMITTED: June 19, 1959

Card 3/3

LIVSHITS, M.M., inzh.; SHRIRO, I.I., inzh.

New method of assembling the spiral chambers of hydraulic turbines.
Energomashinostroenie 7 no.12:35 D '61. (MIRA 14:12)
(Hydraulic turbines)

SERGEYEV, V.S.; LIVSHITS, M.M.; KARNACHEVA, Z.G.

Quantitative determination of proteins in dinner foods.
Vop. pit. 21 no.2:89 Mr-Apr '62. (MIRA 15:3)

1. Iz Nauchno-issledovatel'skoy i Tsentral'noy sanitarno-pishchevoy laboratorii Upravleniya obshchestvennogo pitaniya, Leningrad.

(FOOD--ANALYSIS)
(PROTEINS)

LIVSHITS M.N.

ZUBKO, V.M.; LIVSHITS, M.N.

Furniture industry of the Ukraine on the fortieth anniversary of the
October Revolution. Der. prom. 6 no.11:11-13 N '57. (MIRA 10:11)

1. Gosplan USSR.

(Ukraine--Furniture industry)

LIVSHITS, Mikhail Naftol'yevich; BALABANOV, Ye.M., doktor fiziko-
matematicheskikh nauk, nauchnyy redaktor; GEL'PERIN, N.B.,
kandidat tekhnicheskikh nauk, nauchnyy redaktor; GIMPEL'SON,
A.Z., redaktor; GLADKIKH, N.N., tekhnicheskiy redaktor

[Electric methods of painting, enameling and glazing] Elektricheskie
metody okraski, emalirovaniya i glazurovaniya izdelii. Moskva, Gos.
izd-vo lit-ry po stroit. materialam. 1956. 111 p. (MLRA 10:3)
(Spray painting) (Enamel and enameling) (Glazing)

L.I.V.S.H.I.T.S., M.I.N.

25(1) PHASE I BOOK REFERENCE 807/3161
 Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti,
 Kiyevskoye obshchestvo pravleniye

Nauchno-tekhnicheskoye i spetsial'noye podryadnoye obshchestvo (Protective,
 Decorative, and Special Coatings for Metals) Kiyev, MashaGiz, 1953. 291 p.
 4,200 copies printed.

Editorial Board: P. K. Lavrov, N. I. Litvak, and A. P. Dyckin (Dep. Ed.)
 Ed. of Publishing House: N. S. Soroka; Chief Ed. (Southern Division,
 MashaGiz): V. E. Saryuk, Engineer.

PURPOSE: This book is intended for technical personnel in the field of protective
 coatings for metal.

CONTENTS: The papers in this collection, presented at a conference of the FPO
 Machine-Build in Odessa, deal with the mechanization and acceleration of
 metal-coating and plating processes performed by spraying, electrolytic,
 and other methods. Quality control of protective coatings is also discussed.
 No personalities are mentioned. References follow several of the papers.

Jurkova, Z. P., Engineer (Moscow). White Bronze Plating and Electroplating 174
 of Copper Alloys as a Substitute for Silver Plating

Endreyevskiy, E. Z. Selection of Coatings for Clamping Fixtures of 176
 Electrical-Installation Equipment

Matyushchuk, S. S., Engineer (Leningrad). Instrument for Controlling the 186
 Thickness of Electroplating During the Process of Deposition

Koch, L. S., Engineer (Moscow). Photoelectrochemical Method of Engraving 191
 Iron and Steel Plates for Machines and Instruments

Borodina, N. S., Engineer (Moscow). Aluminizing of Steel In-Factories by 198
 Spraying With Aluminum in Vacuum

Silyayev, P. P. Conditions of Chemical Sciences (Moscow). Technological 208
 Achievements and Improvements in Equipment Design Made by FINECHEM
 During the Fifth Five-Year Plan in the Field of Chemical and Electrolytic
 Treatment of Metals

Podorov, V. A., Engineer (Leningrad). Mechanization and Acceleration of 208
 Electroplating Processes

Butler, E. G., Engineer (Gor'kiy). Present State and Fields of Application 223
 for Electrostatic Painting in the Machine-Building Industry

Gubarevskiy, N. A., Engineer (Moscow). Painting of Products in a High- 230
 Voltage Electric Field

Lebedev, I. L., Engineer (Gor'kiy). Introduction of New Painting Materials 243
 and Methods at the Gor'kiy Avtomobil (Gor'kiy Motor Vehicle Plant)

Smolin, G. S., Engineer (Leningrad). Rapid Drying of Paint and Lacquer 259
 Coats Through Application of Commercial-Frequency Currents

Titshina, M. S., Engineer (Moscow). Automated Painting, Enameling, and 271
 Glazing of Deeply Recessed Products by Electrostatic Spraying

Drachov, G., Conditions of Technical Sciences (Moscow). Painting of 284
 Industrial Products in France

LIVSHITS, M.N.; NEZHINSKAYA, G.S.

Enameling chutes in electric fields of corona discharges. Bnl.
tekh.-ekon.inform. no.1:4-6 '59. (MIRA 12:2)
(Coal mines and mining--Equipment and supplies) (Enamel and enameling)

LIVSHITS, M.N., kand.med.nauk; VORONINA, V.P.

Treatment of some diseases of the soft tissues, joints and spine with preparation biliarin, "preserved bile preparation."
Sov.med. no.3:113-115 '62. (MIRA 15:5)

1. Iz polikliniki No.37 (glavnyy vrach L.D. Isayeva) Zhdanovskogo rayona Moskvy i fermentnogo otdeleniya tsekha meditsinskikh preparatov (nach. V.P. Voronina) Moskovskogo ordena Lenina myasokombinata imeni A.I. Mikoyana.

(BILE) (JOINTS--DISEASES) (SPINE--DISEASES)

LIVSHITS, M.N., kand.med. nauk

Treatment of calculous bursitis with biliarin. Sovet. med. 27
no.9:116-118 S'63 (MIRA 17:2)

1. Iz polikliniki No.37 (glavnyy vrach L.D.Isayeva) Zhdanov-
skogo rayona Moskvy.

LIVSHITS, M.N.; IGHATOVICH, I.I.; GUZMAN, M.A., red.

[New technology for preparing mixing materials and vitreous enamels] Novaia tekhnologiya izgotovleniia shikhtovykh materialov i stellovidnykh emalei. Moskva, Stroiizdat, 1964. 23 p. (MIRA 17:9)

L 55063-65
AM5017158

0

CHAPTER HEADINGS OF
PART I ARE AS FOLLOWS:

Ch. I. Electrical phenomena in aerosols

1. General information on pure air and aerosols
2. Aerosol particles
3. Classification of aerosols and aerosol suspensions

Ch. II. Charged particles in pure air and in aerosols

4. Classification of charged particles in pure air and in aerosols
5. Formation and disintegration of gas ions
6. Ion charges of isolated aerosol particles produced by the drift of single-sign ions
7. Ion charges of isolated aerosol particles caused by the thermal motion of single-sign ions
8. Derivations from formulas (5) and (10)
9. Ion charges of aerosol particles [occurring] in large concentrations
10. Ion charges of liquid aerosol particles produced by ion adsorption
11. Coefficients of uniformity of ionized aerosol particles
12. Coefficient of charged air

L 55063-65
AMS017158

0

Ch. III. Coronal discharge in pure air and in aerosols

13. General information on coronal discharges
14. Coronal discharge with negative coronal electrodes
15. Coronal discharge with positive coronal electrodes
16. Initial field voltage on coronal electrodes and the initial voltage on coronal discharge
17. Density of current, space charge and the flux of charged particles in the outer zone of coronal discharge
18. Distribution of voltage and field potential in the outer zone of coronal discharge
19. Volt-ampere characteristics of coronal discharge
20. Mutual screening of coronal electrodes
21. Mobility and drift rate of gas ions in the outer zone of coronal discharge
22. ~~Mobility and drift rate of charged aerosol particles in the outer zone of coronal discharge~~
23. Drift rate of polarized aerosol particles in the outer zone of coronal discharge
24. Charge and discharge processes of aerosol particles on a non-coronal electrode
25. Degree of deposition of aerosol particles on a non-coronal electrode

Card 3/5

L 55063-65
AM5017158

Ch. IV. Electrostatic coagulation and dispersion of aerosol particles

- 26. General information on aerosol particle coagulation
- 27. Spontaneous electrostatic coagulation of aerosol particles
- 28. Forced electrostatic coagulation of aerosol particles
- 29. Electrostatic dispersion of aerosol particles

Ch. V. Electrification of aerosols

- 30. Classification of types of electrification
- 31. Electrification of aerosol particles by contact transfer of charge
- 32. Electrification of aerosol particles by electrostatic induction
- 33. Electrification of solid aerosol particles by mechanical processes
- 34. Electrification of liquid aerosol particles by mechanical processes

Ch. VI. Electrolytic deposition

Ch. VII. Electroforming

Ch. VIII. Electric mixing

Ch. IX. Electric separation

Card 4/5

L 55053-65
AH5017158

Ch. X. Electrical particle orientation

SUB CODE: ES

SUBMITTED: 18Jan65

NO REF SOV: 079

OTHER: 007

Card *rh*
5/5

LIVSHITS, M.N., kand. med. nauk

Outpatient treatment of varicose ulcers with antibiotics, sponges
and elastic bandages. Sov. med. 28 no.1:113-116 Ja '65. (MIRA 18.5)

1. 37-ya poliklinika (glavnyy vrach L.D.Idayeva) Zhdanovskogo rayona
Moskvy.

LIVSHITS, M.P.

PHASE I BOOK EXPLOITATION 868

Andreyev, N.V., Kalyuzhnyy, V.G., Konstantinov, A.S., Livshits, M.P.,
Manzhos, F.M., Savkov, Ye.I.; Uspasskiy, P.P., Feygina, A.Ya.,
Chebotarevskiy, V.V., Sheydeman, I.Yu.

Nonmetallicheskiye materialy, ikh obrabotka i primeneniye (Nonmetallic
Materials, Their Processing and Use) Moscow, Oborongiz, 1949.
535 p. 6,000 copies printed.

Ed. (title page): Kalyuzhnyy, V.G.; Ed. (inside book):
Ponomareva, K.A.; Tech. Ed.: Zudakin, I.M.

PURPOSE: This book is intended for students of aviation institutes
and other institutes and it may also be useful to engineering
technicians dealing with nonmetal materials.

COVERAGE: The book consists of two parts and deals with various
nonmetallic materials used in the aircraft industry. The first
Card 1/28.

Nonmetallic Materials (Cont.)

868

part discusses wooden materials and the second part presents basic information on plastics, adhesives, textiles, paper and rubber. The basic mechanical and chemical properties of nonmetallic materials, their engineering requirements and methods of processing them are presented. The book was written by personnel of the Moscow Aircraft Institute imeni Sergo Ordzhonikidze, the Moscow Aircraft Engineering Institute, the All-Union Scientific Research Institute for Aircraft Materials and other organizations. Chapters I, II, V, and VI were written by Ye. I. Savkov, chapter III by Candidate of Technical Sciences F.M. Manzhos, chapter IV by Candidate of Technical Sciences V.G. Kolyuzhnyy, chapters VII and VIII by Candidate of Technical Sciences A.Ya. Feygina, chapters IX and XI by Professor P.P. Uspasskiy, chapter X by Candidate of Technical Sciences N.V. Andreyev, chapter XII by Candidate of Technical Sciences I.Yu. Sheydeman, and N.V. Andreyev, chapter XIII by Candidate of Technical Sciences I.Yu. Sheydeman, and Engineer A.S. Konstantinov, chapter XIV by Candidate of Technical Sciences V.V. Chebotarevskiy, and I.V. Andreyev, chapter XV by Candidate of Technical Sciences

Card 2/28

Nonmetallic Materials (Cont.) 868

V.V. Chebotarevskiy, and chapter XVI by Engineer M.P. Livshits and Candidate of Technical Sciences N.V. Andreyev. The authors thank Professor A.V. Shepelyavy, Professor, Doctor of Chemical Sciences I.P. Losev, Engineers A.A. Babichev, V.S. Bondarev for their assistance in supplying data and reviewing the book, and they also thank Engineer V.P. Leont'yev for his assistance in preparing chapter X, Paper Materials. There are 60 Soviet references.

TABLE OF CONTENTS:

Foreword	3
Introduction	7

PART I. WOOD MATERIALS, THEIR PROCESSING AND USE

Card 3/28

LIVSHITS, M. S.

O nekotorykh voprosakh, svyazannykh s opredelennost'yu problemy momentov
Hamburger'a. Matem. SE., 6(48), (1939), 293-306.
Ob obnom primenenii teorii ermitovykh operatorov k otobshchenoy probleme
momentov. DAN, 44 (1944), 3-7.

SO; Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.
Merkushevich, A.I.
Rashevskiy, P.K.
Moscow-Leningrad, 1948

LIVSHITS, M. S.

On an Application of the Theory of Hermitian Operators to the Generalized Problem of Moments," Dokl. AN SSSR, 44, No.1, 1944

Odessa State University

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7"

LIVSHITS, M. S.

LIVSHITS, M. S.

PA 3/50150

USSR/Mathematics - Operator Function 11 Sep 49

"A Linear Operator Function, Invariant With Respect to a Group of Displacements," M. S. Brodskiy, M. S. Livshits, Odessa Pedagogical Institute K. D. Ushinsky, 4 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 2

Considers linear function $A+AB$ (A assumes all values) of the parameter s , whose coefficients A and B are linear operators in a Hilbertian space H , invariant with respect to a group of displacements G of parameter s according to equality: $A+(s+s)B = U^{-1}(s)(A+AB)U(s)$, where $U(s)$

3/50150

USSR/Mathematics - Operator Function (Contd) 11 Sep 49

(s assumes all values) is a certain unitary representation of group G in the space H . Submitted by Acad A. N. Kolmogorov 16 Jul 49.

3/50150

LIVSHITS, M. S.

1. The first part of the report is devoted to a

description of the work done in the

field of the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

the theory of

LIVSHITS, M. S.

PA 165T30

USSR/Mathematics - Matrices

1 Jun 50

"Multiplication Theorem of Characteristic Matrix Functions," M. S. Livshits, V. P. Potapov, Odessa State Pedagogical Inst imeni K. D. Ushinskiy

"Dok Ak Nauk SSSR" Vol LXXII, No 4, pp 625-628

Studies spectra of quasi-unitary operators and their invariant subspaces, in which concept of normed characteristic functions is introduced to permit establishing a correspondence between quasi-unitary operators and analytic matrix functions. Submitted 5 Apr 50 by Acad A. N. Kolmogorov.

165T30

LIVSHITS, M. S.

25

$$P = W \times \frac{d}{c} Q(x, t) \quad \text{where } \int$$

LIVSHITS, M. S.

USSR/Mathematics - Resolvent Matrix 21 Jun 52

"The Resolvent of a Linear Asymmetrical Operator,"
M. S. Livshits

"Dok Ak Nauk SSSR" Vol LXXXIV, No 6, pp 1131-1134

Discusses the problem concerning the reduction of a linear asymmetrical operator A of class $(i\Omega)$ to the triangular form \bar{A} by means of unitary transformation. Shows that each operator of the class $(i\Omega)$ is accompanied by a system of finite-difference and differential eqs by means of the soln of which both the resolvent and characteristic matrix-function of operator A are expressed. Submitted by Acad A. N. Kolmogorov 16 Apr 52.

223T81

L.I.P.S.H.I.T.S., M. S.

Livšic, M. S. On spectral decomposition of linear nonself-adjoint operators. *Dokl. Akad. Nauk SSSR* 14:76-115 (1954) (Russian)

This paper contains a summary of the results announced by the author in two earlier notes. *Dokl. Akad. Nauk SSSR* 84:870-872 (1952) and *Dokl. Akad. Nauk SSSR* 14:184, 185 (1954). These results constitute an important advance in the spectral theory of *non Hermitian (and indeed non-normal) linear operators in Hilbert space.*

In addition to the results summarized in the reviews of the preliminary notes, the following may be mentioned (notation and terminology as in earlier reviews):

Let

$$W(\lambda) = I + 2i \operatorname{sgn} \Im(A) |\Im(A)|^4 (A^* - \lambda I)^{-1} |\Im(A)|^4,$$

the functions of the operator $\Im(A)$ being defined in the usual way by using its eigenvalues. Let $\{e_i\}$ be an orthonormal base of the closed subspace E , consisting of eigenvectors of $\Im(A)$, and let the matrices of $W(\lambda) = 2|\Im(A)|^4$ and $\operatorname{sgn} \Im(A)$ with respect to this base be $w(\lambda)$, w , $|w|^4$ and J respectively. Then

$$w(\lambda) = I + i|w|^4 [(A^* - \lambda I)^{-1} e_i, e_i] |w|^4 J$$

is the characteristic matrix function of A . If the subspace

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930310008-7"

signature $(p, 0)$, then

$$\sum_{k=1}^{\infty} \gamma_k \leq 1, \quad (1)$$

equality holding if and only if the closed subspace generated by the finite-dimensional invariant subspaces of A is the whole space \mathfrak{S} . This result is applied to completeness problems for the eigenfunctions of homogeneous linear differential equations.

A number of special types of operators are analysed in detail, among these are the Jacobi matrices associated with Chebyshev polynomials.

F. Smithies.

LIVSHITS, M. S.

USSR/Mathematics - Theory of operators

Card : 1/1

Authors : Livshits, M. S.

Title : About the reversible problem of the theory of operators. I.

Periodical : Dokl. AN SSSR, 97, Ed. 3, 399 - 402, July, 1954

Abstract : Proves that a Hermitian Matrix H_p is linear with respect to p and unitarily equivalent (under conditions for simplicity) to the matrix $mc^2 T + cp J_0$, where $p > 0$; c is a constant) O and mc^2 is a part of the expression $E_p = c \sqrt{m^2 c^2 + p^2}$ (called energy level); H_0 is a limiting Hermitian operator and J_0 & T are matrices of special types. One reference.

Institution : Hydro-meteorological Institute in Odessa.

Presented by : V. I. Smirnov, Academician, May 24, 1954

LIVSHITS, M. S.

USSR

USSR

Livšic, M. S. On an inverse problem of the theory of operators. II. Dokl. Akad. Nauk SSSR (N.S.) 97, 589-592 (1954). (Russian)

1-F/W

MS

62

In this note the author generalizes the result of note I (reviewed above) as follows. Let $H_p = A + pB$ be Hermitian and linear with respect to p for $p > 0$, and suppose that for each $p > 0$ the matrix H_p has the unique eigenvalue $E_p = c(m^2c^2 + p^2)^{1/2}$, where $c > 0$. Suppose also that B is the matrix of a completely continuous operator. Then H_p is unitarily equivalent to a matrix of the form

$$\begin{bmatrix} T_p & 0 & \dots & 0 & 0 \\ 0 & T_p & \dots & 0 & 0 \\ \cdot & \cdot & \dots & \cdot & \cdot \\ 0 & 0 & \dots & T_p & 0 \\ 0 & 0 & \dots & 0 & C \end{bmatrix}$$

where (in the notation of I) $T_p = mc^2T + cpI_0$, and C is a constant Hermitian matrix. In particular, if H_p has a simple spectrum, it is unitarily equivalent to T_p . Relations with the theory of the Dirac wave equation are indicated.

F. Smithies (Cambridge, England).