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SOURCE Elektrichestvo.

NEW SOVIET BOOKS ON ELECTRICITY,
ELECTRICAL ENGINEERING, AND ELECTRIC POWER

The following list of books appeared in Elektrichestvo, No 10, 1949. Books were published in 1949 unless otherwise indicated.

1. Power-Factor Compensation in Industrial Enterprises (Kompensatsiya koeffitsiyenta moshchnosti promyshlennykh predpriyatiy), G. M. Berdichevskiy, translation by I. I. Vim; Energosbyt Latvenargo and Council of the Scientific and Technical Society of Latvian SSR; "Tsinya" Publishing House, 72 pp, (in Latvian).
2. New Incoming-Switching Apparatus of Telephone Line-Equipment Rooms for Overhead Communication Lines (Novaya vvodno-kommutatsionnaya apparatura telefonnykh lineyno-apparaturnykh zalov dlya vozdushnykh liniy svyazi), G. N. Bogorodskiy, S. A. Vasil'yev, B. S. Klebanov, Svyaz'izdat, 67 pages, 11 diagrams, 5 rubles.
3. Centimeter Wave Techniques (Tekhnika santimetrovykh voln), A Compendium of Lectures by I. I. Vol'man; All-Union Power Engineering Correspondence Institute; "Sovetskoye Radio" Publishing House, 162 pp.
4. Techniques for Measuring Electrical and Magnetic Quantities (Tekhnika izmereniy elektricheskikh i magnitnykh velichin), N. G. Vostroknutov; Committee on Measurements and Measuring Apparatus attached to the Council of Ministers USSR; Metallurgizdat, 260 pp, 17 rubles.
5. Bases for Standardizing and Analyzing Power Consumption in Industry (Osnovy normirovaniya i analiza energopotrebleniya v promyshlennosti), I. V. Gofman; Power Engineering Institute imeni Krzhizhanovskiy, Academy of Sciences USSR, and Leningrad Engineering and Economic Institute imeni Molotov; Lenizdat, 196 pp, 6 rubles 50 kopeks.

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6. Metals and Alloys in Electrical Engineering (Metally i splavy v elektrotekhnike), Professors A. S. Zaymovskiy and V. V. Usov, Stalin Prize Laureates, Doctors of Technical Science; second edition, revised and enlarged (first edition, 1941), Gosenergoizdat, 568 pp with inserts, 32 rubles 50 kopeks.

A reference book for engineers and research workers in laboratories and enterprises, which can also be used as a textbook for students. Provides necessary metallurgical data on materials used in the electrical industry, and gives detailed technological information on those materials and wares manufactured entirely by the industry (cast magnets, "al'sifer," magnetodielectrics, contacts). Book consists of four parts: Part I (9 chapters), General Information; Part II (2 chapters), Conducting Materials; Part III (2 chapters), High-Resistance Alloys; Part IV (5 chapters), Contact Materials. This edition is brought up to date by supplementary data on the properties of ferromagnetic substances, iron and steel castings, magnetodielectrics, thermomagnetism, magnetostriction, non-magnetic steel and iron, textured sheet steel, alloys for permanent magnets and zinc alloy conductors, new manganins, metalloceramic contacts, etc.

7. Induction Heating of Metals (Induktsionnyy nagrev metallov), Symposium of Articles edited by S. Ya. Turlygin; Ministry of Heavy Machine Building, Central Scientific Research Institute of Technology and Machine Construction; Mashgiz, 65 pp, 5 rubles 50 kopeks.

8. Manufacture of Bare Conductors and Power Cables With Impregnated Paper Insulation (Proizvodstvo golykh provodov i silovykh kabeley s bumazhnoy protannoy izolyatsiyey), V. N. Krasotkin, Gosenergoizdat, 1948, 252 pp, 8 rubles; authorized as a textbook for technical schools of electromechanics by the Administration of Educational Institutions of the Ministry of Electrical Industry USSR.

Describes: types, marks, and manufacture of bare conductors for power transmission lines (up to 220 kilovolts) and power cables with impregnated paper insulation; cable materials and semifinished products; technological equipment of cable shops and their manufacturing techniques. Book reflects latest achievements of Soviet cable technology and is recommended for foremen and for general personnel in cable factories.

9. Home-made Ohmmeters and Voltammeters (Samodel'nye ommetry i avometry), R. M. Malinin; People's Radio Library, No 22, Chief Editor A. I. Berg; Gosenergoizdat, 50 pp, one ruble 50 kopeks.

10. Centrifuged Reinforced Concrete Supports for Overhead Electric Lines (Opory elektricheskikh vozdushnykh liniy iz tsentrifugirovannogo zhelezobetona), Ye. E. Mikhel'son; Ministry of Electric Power Plants, Main Water Power System; published by Georgian Polytechnical Institute imeni Kirov, 225 pp, 15 rubles.

11. Theory of the Electric Drive and Automatics of Reversing Mills (Teoriya elektroprivoda i avtomatika reversivnykh stanov), D. P. Morozov, Gosenergoizdat, 316 pp with inserts, 14 rubles 25 kopeks.

12. Cathode-Luminescence (Katodolyuminestsentsiya), Part II, Cathode-Lumiphors and Screens, A. V. Moskvina, Gostekhzdat, 699 pp, 25 rubles.

13. Dynamics of Automatic Regulation (Dinamika avtomaticheskogo regulirovaniya), R. Oldenbourg, G. Sartorius, translation edited by A. V. Mikhaylov, Gosenergoizdat, 328 pp, 18 rubles.

Methodical presentation of the theoretical bases of the dynamics of automatic regulation with a concluding section on area of application of the various regulating methods discussed. Book fails in some cases to match authors' list of references with parallel lists of Soviet references which are considered no less important.

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14. Low Power Radio Stations in the Coal Industry (Radiostantsii maloy moshchnosti v ugol'noy promyshlennosti), N. S. Poretskiy, P. N. Vinogradov, Ugletekhizdat, 171 pp, 10 rubles 20 kopeks.

15. Handbook of Laboratory Methods for a Course in Electronic and Ionic Apparatus (Metodicheskoye rukovodstvo k laboratornym rabotam po kursu elektronno-ionnykh priborov), L. S. Rosanova, Odessa Electrical Engineering Institute for Communications, 55 pp.

16. Electric Networks and Electric Transmission Lines (Elektricheskkiye seti i linii elektropredachi), A. Ya. Ryabkov, Armgiz, 336 pp, 21 rubles (in Armenian); textbook for technical schools of power engineering.

17. Collection of Reports Presented Before the Scientific and Technical Session on Electric Power Conservation (Sbornik materialov nauchno-tekhnicheskoy sessii po ekonomii elektroenergii), No 1, Moscow Scientific and Technical Society of Power Engineering (MONITOE), Section on Industrial Electrical Engineering; published by MONITOE, 180 pp, no charge.

Following reports are included: P. G. Grudinskiy, "Economical Performance of Transformers and Induction Motors", M. S. Ryabov, "New Sources of Light and Economical Use of Electric Power for Lighting Installations"; A. Ya. Lerner, "Economic Methods of Regulating the Speed of Electric Drives"; A. A. Tayts, "Improving the Power Factor in Industrial Enterprises"; D. P. Morozov, "New Electric Drive Layout for Low-Power Reversing Mechanisms"; G. A. Rivkin, "Modern Mercury Rectifiers"; S. M. Livshits, "Specific Means for Preventing Losses in Supplying Electric Power to Industrial Enterprises"; B. V. Lur'ye, "Economic Use of Electric Power for Hoists and Conveyers"; A. S. Sandler, "Regulated Electric Drives for Metal-Cutting Machines"; M. I. Trekhov, "Economical Use of Electric Power in Metalworking Shops"; A. S. Kayukov, "Economical Use of Electric Power in Air-Compressor Equipment"; N. N. Rubtsov, "Economical Use of Electric Power in Foundries".

18. Repairing Sulfate Boilers by Electric Arc Welding (Remont sulfatovarochnykh kotlov elektrodugovoy svarkoy), L. B. Sigalov, A. M. Tikhomirov, Goslesbumizdat, 1948, 92 pp, 6 rubles.

19. Electron Microscopes (Elektronnyy mikroskop), N. G. Sushkin; Engineer's Physicomathematical Library; Gostekhizdat, 276 pp, 10 rubles 50 kopeks.

20. How to Make Your Own Wind-Driven Generator (Kak sdelat' samomy vetroelektricheskii agregat), Ye. M. Fateyev; People's Radio Library, No 24, Chief Editor A. I. Berg; Gosenergoizdat, 66 pp, 2 rubles.

21. The Path of Soviet Television Development (Puti razvitiya sovet-skogo televideniya), P. V. Shmakov, Leningrad Branch, All-Union Society for the Advancement of Political and Scientific Knowledge, 38 pp, one ruble.

22. Handbook on Brushes for Electric Machines (Spravochnik po shchetkam dlya elektricheskikh mashin), G. S. Shtykhov, M. D. Belkin; Ministry of the Metallurgical Industry, Main Electric Power Administration; Metallurgizdat, 96 pp, no charge.

23. Amplifying and Rectifying Devices (Usilitel'nyye i vypryamitel'nyye ustroystva), I. Ya. Chudnovskiy, edited by L. D. Rozenberg; Ministry of Cinematography USSR, Administration of Educational Institutions; Goskinoizdat, 385 pp, 15 rubles 35 kopeks; recommended as a reliable textbook for cinematic technical schools.

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The following list was given in Elektrichestvo, No 12, 1949.
Books were published in 1949 unless otherwise indicated.

1. Static Electricity in Industry (Staticheskoye elektrichestvo v promyshlennosti), N. G. Drozdov, Gosenergoizdat, 175 pp, 7 rubles.

2. The World of the Atom (Mir atoma), G. A. Zisman, Popular Science Library, Gostekhizdat, 65 pp, 1 ruble 10 kopeks.

3. Electric Machines (Elektricheskiye mashiny); M. P. Kostenko, Gosenergoizdat, 712 pp, 35 rubles 25 kopeks; approved as a textbook for electrical and power engineering higher educational institutions and faculties. Supplement: "Basic Literature," (1,165 titles), 38 pp, no charge.

4. Handbook on the Installation of Distribution Equipment (Spravochnik po montazhu raspredelitel'nykh ustroystv), P. V. Kuznetsov, V. S. Kondakhchan, Gosenergoizdat, 588 pp, 40 rubles.

The handbook is intended for technical personnel installing electrical equipment in distributing installations, superintendents of works foremen, and directors of installation sites. Gives the main technical conditions and instructions on installation technology and electrical equipment testing, and also tolerances for installation work. Describes the composition of auxiliary materials (glues, putties, solders, etc.) and gives sketches of auxiliary installation equipment. Book is based on instructions of the Ministry of Electric Power Plants, production instructions, generalized experience of installation organizations, plant instructions, and GOST. It is divided into five sections: First (4 chapters) presents general engineering and electrical engineering information, information on electrical installation and Building materials. Second (16 chapters) contains information on the technology of installing equipment for primary connection networks and technical conditions for the performance of individual operations. Third (8 chapters) contains information on the installation of equipment for secondary connection networks, i.e., switchboards, measuring instruments and protection devices, storage batteries. Fourth (9 chapters) discusses tests and adjustment of electrical equipment during installation and when being put into service. Fifth (3 chapters) contains information on basic problems in organizing and preparing operations for mechanization and rationalization of installation processes and on rigging equipment. There is a detailed alphabetical index at the end of the book.

5. Electrical Phenomena in Nonlinear Elements of Radio Receivers (Elektricheskiye protsessy v nelineynikh elementakh radiopriyemnikov), N. N. Krylov, Svyaz'izdat, 370 pp, 21 rubles.

6. The Electric Current (Ob elektricheskikh toke), F. K. Kurepin, Gosenergoizdat, 296 pp, 11 rubles.

7. A Window Into the Invisible (Okno v nevidimoye), The Electron Microscope, Yu. M. Kushnir, Popular Science Library, Latgosizdat, 54 pp, one ruble 20 kopeks (in Latvian).

8. Lomonosov Readings (Lomonosovskiy Chteniye), Modern Problems of Science and Technology, published by "Molodaya Gvardiya," 174 pp, 7 rubles.

Collection contains following lectures: S. I. Vavilov, "Lenin and Modern Physics"; A. N. Alikhanov, "Cosmic Rays"; A. F. Kapustinskiy, "Atomic Energy"; A. I. Berg, "Radar"; A. I. Mikulin, "Jet-Propulsion Technology"; V. I. Kovalenkov, "Automatics and Telemechanics"; A. B. Chernyshev, "New Methods of Processing Solid Fuel"; and G. M. Krzhizhanovskiy, "Power Engineering and Its Future."

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9. Theoretical Electrical Engineering (Teoreticheskaya elektrotehnika), N. N. Mansurov, V. S. Popov, second edition, revised, Gosenergoizdat, 488 pp, 16 rubles 60 kopeks; approved as a textbook for electrical engineering technical schools.
 10. In the World of Solidified Sounds (V mire zastyvshikh zvukov), V. D. Okhotnikov, Popular Science Library, Latgosizdat, 36 pp, one ruble (in Latvian).
 11. Magnets (Magnety), V. D. Okhotnikov, Popular Science Library, Gostek-hizdat, 32 pp, 60 kopeks.
 12. Electrical Engineering (Elektrotehnika), V. S. Popov, Gosenergoizdat second edition, revised, 496 pp, 15 rubles; approved as a textbook for nonelectrical technical schools.
 13. Resolution of the Scientific and Technical Session on Overvoltages (Rezolyutsiya nauchno-tekhnicheskoy sessii po perenapryazheniyam), 21 - 26 March 1949; All-Union Scientific and Technical Society of Power Engineers (VNITOE) and Ministry of Electric Power Plants USSR; published by VNITOE, 8 pp. no charge.
 14. Traction Substations (Tyagovyye podstantsii), I. Ya. Ryshkovskiy, Transzheldorizdat, 374 pp, 18 rubles; approved as a textbook for transport higher educational institutions.
 15. Electricity (Elektrichestvo), Ya. Ya. Sell'-Bekman, Novosibirsk Oblast Publishing House, 1948, 47 pp, 80 kopeks.
- A popular pamphlet containing the rudiments of electricity, very carelessly written and edited. There are many unfortunate statements and mistakes. Insufficient attention is paid to the work of Russian scientists and inventors in the history of the development of electrical engineering.
16. Thunder and Lightning (Molniya i grom), I. S. Stekol'nikov, Popular Science Library, Latgosizdat, 36 pp, one ruble (in Latvian).
 17. Subject Reference Book for Rationalizers and Inventors (Tematicheskiy spravochnik dlya ratsionalizatorov i izobretateley); Ministry of the Electrical Industry ("Elektroprovod" Plant); TsBTI, Ministry of the Electrical Industry, 23 pp, no charge.
 18. Subjects for Inventors and Rationalizers in Railroad Electrification (Temi dlya izobretateley i ratsionalizatorov po khozyaystvu elektrifikatsii zheleznikh dorog), Transzheldorizdat, 40 pp, no charge.
 19. Transactions of the Scientific and Technical Session on Electrical Insulation (Trudy nauchno-tekhnicheskoy sessii po elektricheskoy izolatsii); VNITOE; Gosenergoizdat, 203 pp, subscription edition.

Collection contains following reports read at All-Union Scientific and Technical Session on Electrical Insulation (30th plenum of All-Union Bureau on Electrical Insulation): "Dielectric Losses and the Structure of Solid Dielectrics," by P. P. Kobeko and G. P. Mikhaylov; "The Effect of Moisture on the Electrical Properties of Organic Insulating Materials," by M. M. Mikhaylov and T. N. D'yachenko; "Modern Concepts Concerning the Nature of Dielectrics," by Ya. I. Frenkel'; "Substances With High and Super-High Dielectric Permeability," by G. I. Skanavi; "New Types of Insulation for Electric Machines," by V. I. Kalitvyanskiy; "Glass Insulation and Its Use in Electrical Engineering," by B. M. Tareyev; "The Development of Modern Condenser Construction," by V. T. Renne; "Insulating Materials for Wires and Cables," by S. M. Bragin; "Ceramic Insulation in Electrical Engineering," by N. P. Bogoroditskiy; "Transformer Oil and

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Its Substitutes," by M. V. Kurlin; "The Technological Application of High Frequency for Heating and Drying Dielectrics," by V. I. Kalitvyanskiy and V. M. Degtev; "Method of Drying by Infrared Radiation," by R. S. Kholodovskiy.

20. The Streetcar Driver's Handbook (Uchebnoye rukovodstvo dlya voditeley tramvaya), Production and Technical Combine, Moscow Streetcar Directorate, 231 pp, 12 rubles.

Book is the result of the combined work of P. V. Kalinin, I. A. Neli-dov, M. P. Yermolayev, and Ye. B. Libin, under editorship of S. S. Tikhomirov, chief engineer, Moscow Streetcar Directorate.

Book is approved by Methodology Council, Moscow Streetcar Directorate. First section gives a brief history of Moscow urban transport. Second section, on the Moscow streetcar line, discusses rolling stock, depots and plants, lines, and electric power. Third section covers rolling stock; fourth, the work of the driver at the depot and on the lines; fifth, traffic organization, Sixth is a dispatcher's guide to the movement of the cars. Seventh section examines safety technique in the work of the driver at the depot and on the line. Eighth discusses rules of street traffic.

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