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CENTREX PUBLISHING COMPANY
P.O. Box 76
EINDHOVEN


METAL
GASES
DIODES ET TRANSISTORS

Contents

Physics

Casimir/Gradstein - AN ANTHOLOGY OF PHILIPS RESEARCH

Edited by **H. B. G. Casimir** and **S. Gradstein**
467 pp, 9 × 12 in, with many illustrations, 1966

This volume illustrates the scope of the work of the Philips Research Laboratories and surveys a number of important results.

English edition can be supplied.

Dickson - THE BOWL OF NIGHT

The physical universe and scientific thought

by **F. P. Dickson**, Lecturer in Cosmology at the School of History and Philosophy of Science of the University of New South Wales
xii + 228 pp, 6×9 in, 9 illus and 12 plates, 1968

CONTENTS: 1. Nature of the subject. 2. Early cosmological history. 3. The dark ages. 4. The age of Newton. 5. The scale of the universe in earlier times. 6. The paradox. 7. The island universe. 8. Light and the ether. 9. Light and relativity. 10. Space, time and relativity. 11. The first relativistic cosmologies. 12. Some relativistic expanding universes. 13. Another approach. 14. The theory of matter. 15. Theory and the world. App. I. Reprint H. W. M. Olbers on The Paradox, 1826. App. II. Reprint J. P. L. de Cheseaux on The Paradox, 1744.

English edition can be supplied.

Duivenstijn/Venverloo - PRACTICAL GAMMA SPECTROMETRY

by **A. Duivenstijn & L. A. J. Venverloo**
viii + 145 pp, 6×9 in, 67 illus, 4 pp photos, 1964

A short description of the theory on which gamma spectrometry is based. The amount of material dealt with is strictly limited; the essential knowledge to put this method in practice is described. Many references to existing publications are included.

CONTENTS: 1. Introduction. 2. Stable and radioactive atoms. 3. Radiation and matter. 4 Radiation detectors. 5. The gamma spectrometer. 6. Qualitative interpretation, 7. Quantitative interpretation. 8. Special spectrometer techniques.
Appendix 1. Some fundamental physical constants. Appendix 2-5. 49 references.

Editions in English, French, German and Dutch can be supplied.

Fast - ENTROPY

The significance of the concept of entropy and its applications in science and technology

by **J. D. Fast**, Professor at the Technical University, Eindhoven; Chief Chemist, Philips Research Laboratories
xii + 320 pp, 6×9 in, 68 illus, 1962

A masterly presentation of the somewhat elusive concept of entropy, which Prof. Fast applies to a wide variety of topics and problems notably in physical chemistry and metallurgy. The book has been widely acclaimed in its Dutch, German and French versions.

CONTENTS: 1. The concept of entropy in classical thermodynamics. 2. The statistical significance of the entropy concept. 3. Applications of the concept of entropy. 4. Quantum mechanics and statistics. 5. The entropy of monatomic gases. 6. The entropy of diatomic gases.

Editions in English, French, German and Spanish can be supplied.

Fast - INTERACTION OF METALS AND GASES

Volume I: Thermodynamics and phase relations

by **J. D. Fast**, Professor at the Technical University, Eindhoven; Chief Chemist, Philips Research Laboratories
x + 310 pp, 6×9 in, 139 illus, 8 pp photos, 1965

A standard work on the thermodynamics of the interaction of metals and gases written by a world expert. An up-to-date book, with the latest results of research. A textbook for university students, metallurgists and chemists.

CONTENTS: 1. Thermodynamic introduction. 2. Chemical equilibrium. 3. Calculation of equilibrium. 4. Reactions between pure metals and gases resulting in the formation of new phases. 5. Reactions between alloys and gases whereby new phases are formed. 6. Reaction between carbon and oxygen in steel. 7. Solutions of gases in metals -I. 8. Solutions of gases in metals - II. 9. Solutions of gases in alloys.

English edition can be supplied.

Fast - INTERACTION OF METALS AND GASES

Volume II: Kinetics and mechanisms

by **J. D. Fast**, Professor at the Technical University, Eindhoven; Chief Chemist, Philips Research Laboratories
approx. 350 pp, 6×9 in, 150 illus.

CONTENTS: Atomic considerations. Diffusion of gases in metals. Internal friction due to interstitial atoms. Interaction between interstitial atoms and lattice imperfections. Permeation of gases through metal walls. Reactions between pure metals and gases which lead to the formation of new phases. Reaction between alloys and gases which lead to the formation of new phases.

In preparation. To be published in 1969.

Jenkins/De Vries - PRACTICAL X-RAY SPECTROMETRY

by **R. Jenkins & J. L. de Vries**
x + 184 pp, 6×9 in, 65 illus, 2 pp photos, 1968

Covers all of the more usual practical difficulties experienced in the application of the method.

CONTENTS: Historical introduction. Characteristic and origin of X-rays. Derivation of intensity formula. X-ray tubes. Dispersion. Detectors. Pulse height selection. Counting statistics. Quantitative analysis. Matrix effects. Qualitative analysis. Sample preparation. Survey of instruments. Trace analysis.

English edition can be supplied.

Kok - ELECTRICAL BREAKDOWN OF INSULATING LIQUIDS

by **J. A. Kok**
xii + 132 pp, 6×9 in, 47 illus, 9 photos, 1961

A study, based on many years' experimental work, towards better understanding of the problem of oil breakdown and deterioration in relation to impurities. It will interest not only those technically concerned but all colloid scientists.

CONTENTS: 1. Introduction. 2. Methods of control. 3. Impurities in insulating oil. 4. Electrophoretic motions of particles. 5. Transverse forces, breakdown. 6. Formative time-lag of breakdown. 7. Breakdown strength and gap width. 8. Purification of insulating oil. 9. Deterioration by local heating and corona discharges. 10. Deterioration products. 11. Conclusion.
Appendices I-VII.
Classical relations on dielectric losses and oil polarization. On some classic relations of oil conductivity. Losses by polarization. Every bridge does not result in a fully developed breakdown. Viscosity. Properties of commercial liquid dielectrics of fairly high purity. Limitation of electrostatic filtration. References.

Editions in English, French and German can be supplied.

Krugers - INSTRUMENTATION IN GAS CHROMATOGRAPHY

Edited by **J. Krugers**
xi + 245 pp, 6×9 in, 115 illus, 1968

The book covers gas chromatography from sample taking up to data processing. The chapters on the different topics can however be read separately. No previous knowledge of gas chromatography is required to read the book.

CONTENTS: 1. Theory. 2. System components. 3. Sampling techniques. 4. Carrier gas. 5. Thermal degradation. 6. Liquid sampling processing. 7. Ovens. 8. Columns. 9. Preparative scale gas chromatography on large volume long columns. 10. Gas chromatographic detectors. 11. Electronics.

English edition can be supplied.

La Toison - INFRARED AND ITS THERMAL APPLICATIONS

by **M. La Toison**
x + 146 pp, 6×9 in, 93 illus, 16 photo pp, 1964

A practical book on the industrial application of infrared sources; apart from a theory on infrared drying and many recipes, which have proved their value in practice, one finds in it a variety of industrial, as well as agricultural applications.

CONTENTS: 1. The infrared spectrum. 2. Energy measurements. 3. The laws of radiation - The black body and non-black bodies. 4. The three modes of heat transfer. 5. Sources of infrared radiation. 6. The equilibrium temperature. The temperature as a function of the heating time. 7. Drying and evaporation. 8. The advantages of heating with infrared lamps. 9. Experimental ovens and preliminary measurements. 10. Constructional details of infrared ovens. 11. Industrial applications of infrared lamps. 12. Infrared and livestock rearing. 13. Infrared lamps for domestic heating. 14. Medical uses of infrared.

Editions in English, French, German and Spanish can be supplied.

Mavrodineanu - ANALYTICAL FLAME SPECTROSCOPY

Selected topics
Edited by **R. Mavrodineanu**
Approx. 600 pp, 6×9 in, 200 illus

CONTENTS: 1. From sample to signal in emission flame spectrophotometry; an experimental discussion. 2. Matrix effects. 3. Sensitivity, detection limits, precision and accuracy in flame emission and atomic absorption spectrometry. 4. Principles of optical design. 5. Principles of electronics design. 6. Determination of nonmetals by emission flame spectrophotometry. 7. Atomic emission and asborption spectrometry of rare earth elements. 8. Some recent spectroscopic investigations of low-pressure oxyacetylene flames. 9. Agronomical applications of flame spectrophotometry. 10. Biological and clinical applications of flame emission and atomic absorption spectrophotometry. 11. Atomic absorption spectrophotometry. 12. Atomic fluorescence flame spectrometry. 13. Hollow cathode discharge devices. 14. Bibliography on analytical flame spectroscopy.

In preparation. To be published in 1969.

Morgan - OP AVONTUUR IN DE ELEKTROCHEMIE (Adventures in electrochemistry)

by **A. Morgan**
xi + 212 pp, 5¾×8½ in, 85 illus, 1964

Dutch edition can be supplied.

Parrish - X-RAY ANALYSIS PAPERS

by **W. Parrish**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA.
xi + 310 pp, 11×7 in, 222 illus, 64 tables, 1965

Twenty-four selected papers explaining diffractometry and spectrometry to research

workers in the field of metallurgy, and providing a very readable introduction to all the more important theoretical and practical aspects of these techniques. This is a second edition of Parrish' wellknown ADVANCES IN X-RAY DIFFRACTOMETRY AND X-RAY SPECTROGRAPHY, completely revised and containing many new articles.

CONTENTS: I - X-RAY POWDER DIFFRACTOMETRY.
1. X-rays. 2. Filter and crystal monochromator techniques. 3. Comparison of X-ray wavelength for powder diffractometry. 4. Determination of spectral contamination of X-ray tubes. 5. The "Norelco" X-ray diffractometer. 6. Geometry, alignment and angular calibration of X-ray diffractometers. 7. Advances in X-ray diffractometry of clay minerals. 8. Experimental study of effect of crystallite size statistics on X-ray diffractometer intensities. 9. Factors in the detection of low concentrations in X-ray diffractometry. 10. Precision measurement of lattice parameters of polycrystalline specimens. 11. Dependence of lattice parameters on various angular measures of diffractometer line profiles.

II - X-RAY SPECTROMETRY.
12. X-ray spectrochemical analysis. 13. Geometry of the non-focusing X-ray fluorescence spectrograph. 14. Tube target and inherent filtration as factors in the fluorescence excitation of X-rays. 15. Instrumental factors and figure of merit in the detection of low concentrations by X-ray spectrochemical analysis. 16. Crystallographic aspects of extra reflections in X-ray spectrochemical analysis. 17. Laue spectrometer for multichannel X-ray spectrochemical analysis. 18. Scanning single-crystal multichannel X-ray spectrometer.

III - COUNTER DETECTORS.
19. Use of counter tubes in X-ray analysis. 20. Absorption and counting-efficiency data for X-ray. 21. X-ray diffractometry of radioactive samples. 22. Conversion of quantum counting rate to roentgens. 23. X-ray intensity measurement with counter tubes. 24. Statistical factors in X-ray intensity measurements.

IV - SILICON REFLECTION ANGLE TABLE.

English edition can be supplied.

Parrish/Mack - DATA FOR X-RAY ANALYSIS

Volume I: Charts for the solution of Bragg's equation (d versus θ and 2θ for Copper K radiation)

by **W. Parrish**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA and **M. Mack**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA.

Second edition, x + 125 pp, 9×12 in, 108 charts, 1963

The charts in this volume were designed to allow easy, rapid and moderately precise conversion of observed reflection angles to d's. d is plotted against the glancing angle θ on the bottom of the chart and the corresponding reflection angle (2θ) on the top of the chart. Each of the charts for the Cu Kα lines extends 2.5° (2θ) and can be read directly to 0.01° (2θ), and those for Cu Kβ extend 5° (2θ) and can be read directly to 0.02° (2θ). Interpolation to one half these values is possible. The precision in reading d increases with increasing angle from 0.1 Å below 2.5° (2θ) to 0.00001 Å above 155° (2θ). The two-colour reproduction and the method of numbering the d scales facilitate the use of the charts.

English edition can be supplied.

Parrish/Mack - DATA FOR X-RAY ANALYSIS

Volume II: Charts for solution of Bragg's equation (d versus θ and 2θ for Molybdenum K, Cobalt K and Tungsten L radiation)

by **W. Parrish**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA and **M. Mack**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA.

Second edition, x + 141 pp, 9×12 in, 75 charts, 1963

The charts for the Kα lines extend 5° (2θ) and can be read directly to 0.02° (2θ), and those for Kβ extend 12.5° (2θ) and can be read directly to 0.05° (2θ). The precision in reading d corresponds to these angular increments over most of the angular range. The charts for Mo Kα cover the range 1°-90° (2θ), for Mo Kβ 3.7°-87.5°, for Co Kα 1.9°-180°, and for Co Kβ 2.9°-175°. The charts for WLα_1 and WLβ_1 each extend 12.5° (θ) for the range 2.7°-175°, and for WLα_2 12.5°-112.5°.

English edition can be supplied.

Parrish/Mack - DATA FOR X-RAY ANALYSIS

Volume III: Charts for solution of Bragg's equation (d versus θ and 2θ for Iron K and Chromium K radiation)

by **W. Parrish**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA and **M. Mack**, Philips Laboratories Inc., Irvington-on-Hudson, New York, USA.

Second edition, x + 137 pp, 9×12 in, 100 charts, 1963

The charts for the Kα lines extend 5° (2θ) and can be read directly to 0.02° (2θ), and those for Kβ extend 12.5° (2θ) and can be read directly to 0.05° (2θ). The precision in reading d corresponds to these angular increments over most of the angular range. The Kα charts cover the angular range up to 180° and those for Kβ to 175°.

English edition can be supplied.

Penning - ELECTRICAL DISCHARGES IN GASES

by **F. M. Penning**

Second edition, viii + 75 pp, 6×9 in, 29 illus, 1965

'A concise synopsis, expressed with admirable clarity, of a branch of physics which, whilst highly specialised in itself, possesses considerable general importance'.

Electrical Times

CONTENTS: 1. Gas discharges, natural and man-made. 2. The conduction of electricity in metals and gases. 3. Non-self-sustaining discharges. 4. The movement of electrons and ions through a gas. 5. The non-self-sustaining arc discharge. 6. The Townsend discharge and breakdown. 7. Sparks and lighting. 8. The glow discharge. 9. The self-sustaining arc discharge. 10. The positive column.

Editions in English, French and German can be supplied.

Piraux - RADIOISOTOPES AND THEIR INDUSTRIAL APPLICATIONS

by **H. Piraux**

xiv + 266 pp, 6×9 in, 107 illus, 93 photos, 12 col. plates, 1963

A clear description of the more important properties of radioisotopes, the precautions to be taken when using them, and the ways in which they may be applied in the field of measurement and research.

CONTENTS: PART I: 1. What are radioisotopes? 2. Physiological effects of radiation. 3. The action of radioisotopes on matter and protective measures. 4. Working conditions. 4. Radiation detectors. 6. Auxiliary equipment. 7. The choice of isotopes and detectors. PART II: 8. Physical applications of ionizing radiation. 9. Radioisotopes and chemistry. 10. Radioisotopes as tracers. 11. Measurement of thicknesses, densities and levels. 12. Gammaradiography and autoradiography. 13. Various applications and techniques. Appendix. Classified index of methods and applications.

Editions in English, French, German and Spanish can be supplied.

Rath - KRISTALLOGRAPHIE (Crystallography)

by **R. Rath**

viii + 188 pp, 6×9 in, 277 illus, 1965

German edition can be supplied.

Schuh - MATHEMATICAL TOOLS FOR MODERN PHYSICS

by **J. F. Schuh**

xii + 456 pp, 6×9 in, 28 illus, 1968

Written for all those who are interested, or who are in fact studying modern physics. It will enable them to understand the mathematical formulation of the ideas underlying current physics topics, as without such understanding the essence of those ideas cannot be clear.

CONTENTS: 1. Introduction. 2. Groups, rings and ideals. 3. Elements of matrix theory. 4. Theory of λ-matrices. 5. Some applications of matrix theory. 6. Some miscellaneous subjects. 7. Differential equations. 8. Pfaff's problem. 9. A survey of classical vector theory. 10. Elements of tensor theory.

English edition can be supplied.

Wenke - BEKNOPTE INLEIDING IN DE OPTICA (Brief introduction to Optics)

by **J. W. G. Wenke**

x + 134 pp, $5\frac{3}{4}\times8\frac{1}{2}$ in, 101 illus, 1966

Dutch edition can be supplied.

Wilson - MATHEMATICAL THEORY OF X-RAY POWDER DIFFRACTOMETRY

by **A. J. C. Wilson,** Professor of Physics, University College, Cardiff

x + 128 pp, 6×9 in, 28 illus, 1963

A modern powder diffractometer is capable of great accuracy in the measurement of both line positions and line profiles. To obtain the best results it is necessary to have a sound understanding of the effect of the finite size of slits and other geometrical apertures limiting the X-ray beams. The detailed effect of these geometrical factors on the line centroids and mean-square breadths is given together with the corresponding results for peak positions and integral breadths whenever possible.

CONTENTS: 1. Introduction. 2. Geometry of diffractometer. 3. Equatorial aberrations. 4. Axial aberrations. 5. Aberration profiles. 6. Physical aberrations. 7. Spacing measurements and peak displacements. 8. Fourier methods. 9. Diffraction broadening.

Editions in English, French and German can be supplied.

For related titles, see also:
Van Dijck - THE PHYSICAL BASIS OF ELECTRONICS, page 5

I. ELECTRICITY and ELECTRONICS

Bacon - ELECTRICITY IN CARS

by **R. H. Bacon,** C. Eng., A.M.I. Mech.E
xi + 184 pp, $5\frac{3}{4} \times 8\frac{1}{2}$ in, 143 illus, 1967

The basic ideas on electricity and its application to the motor car are set out logically, with the accent on principles of operation and illustrations of modern practice.

CONTENTS: 1. Electrical theory. 2. Wiring. 3. The battery. 4. Charging with the dynamo. 5. The alternator. 6. Simple ignition systems. 7. Sparking plugs. 8. Advanced ignition systems. 9. Starting systems. 10. Lighting. 11. Electrical controls, instruments and accessories. 12. Radio equipment. 13. Electronic equipment in cars.

English edition can be supplied.

Glas - ELECTRONICS THROUGH EXPERIMENTS

Volume 1: Components

by **E. T. Glas**
x + 263 pp, 6×9 in, 245 illus, 1966

In this book the exposition of electronic theory is supplemented by directions for experiments. These, together with numerous worked-out quantitative examples, provide a feeling for the order. of magnitude of the electrical quantities and component values met with in practice.
This treatment gives the book important advantages as a text book for use in technical schools and colleges, and also a special value for selftuition.

CONTENTS: 1. The construction and properties of the electron tube. 2. The construction and properties of semiconductor elements. 3. Photoelectronics. 4. Resonance circuits. 5. Relaxation circuits. 5. Capacitors, coils and resistors. 7. Transformers. 8. Radiation. 9. Wave propagation. 10. Laboratory experiments.

English edition can be supplied.

Kerkhofs - BASIC ELECTRICITY FOR ELECTRONIC ENGINEERS

by **A. W. N. Kerkhofs**
viii + 212 pp, $5\frac{3}{4} \times 8\frac{1}{2}$ in, 76 illus, 1966

This book is intended to meet the need for a simple outline of the principles of electrical theory, including a.c. theory, in various institutions for training in electronics. Hence its main emphasis is upon lucidity without, of course, detracting from accuracy.
It should be useful as a training manual in technical colleges.

CONTENTS: 1. The electrical conductor. 2. The electric field. 3. The magnetic field. 4. Alternating current theory.

Editions in English, German and Dutch can be supplied.

Klein/Zaalberg Van Zelst - PRECISION ELECTRONICS

by **G. Klein,** Professor at the Technical University, Delft, and **J. J. Zaalberg Van Zelst,** Professor at the Technical University, Eindhoven.
x + 466 pp, 6×9 in, 467 illus, 1967

A novel approach to the subject. The authors discuss the most common components, methods of calculation and basic circuits in electronics. When discussing principles and methods, special attention is always paid to the limitations which play such an important part in the design of electronic measurement equipment. The first part of this book is therefore general in character, while the remainder devotes special attention to problems met specifically in measurement electronics.

CONTENTS: 1. Introduction. 2. Components. 3. Resistor, capacitor and inductor. 4. Sources of current and voltage. 5. Superposition. 6. Equations. 7. Calculation methods. 8. Thévenin's theorem 9. Electronic valves. 10. The triode. 11. Amplification. 12. Output impedance. 13. Selecting the point of operation. 14. Signal amplitude. 15. Amplifiers. 16. The Miller effect. 17. Tetrodes and pentodes. 18. Cascodes. 19. Balanced amplifiers. 20. Semiconductor diode and transistor. 21. Transistor circuits. 22. Feedback. 23. Distortion. 24. Output impedance with feedback. 25. Input circuits in feedback practice. 26. Impedance transformations. 27. Adding what is lacking. 28. Difference amplifiers. 29. Power supplies. 30. Interference. 31. Noise. 32. Input considerations. 33. Resonant circuits. 34. Wide-band amplifiers. 35. d.c. Amplifiers. 36. Bandwidth. 37. Oscillation. 38. Stability criteria. 39. Relaxation circuits. 40. Amplitude and phase measurement. 41. Modulation and demodulation circuits. 42. Mathematical computing. 43. Accuracy. 44. Bibliography.

Editions in English and Dutch can be supplied.

Van Dijck - THE PHYSICAL BASIS OF ELECTRONICS

by **J. van Dijck**
xiv + 362 pp, 6×9 in, 265 illus, 2 tipped-in sheets, 1964

Written for first year undergraduates and H.N.C. students this is a textbook and survey of the most important groups of physical phenomena on which electronic applications are based, including charging and decharging phenomena, and excitation, ionization and emission phenomena. In each case the author shows how the phenomena can be produced and modified by mechanical, thermal, chemical, electrical, radiant, atomic and nuclear energy.

CONTENTS: PART I. ENERGY AND MATTER. 1. The structure of matter. 2. The main forms of energy. PART II. ELECTRONIC PHENOMENA. 3. Charging and discharging phenomena. 4. Excitation and radiation.

5. Ionization and emission phenomena. PART III. ELECTRON TUBES AND SOLID STATE DEVICES. 6. Elements of electron optics. 7. Introduction to the study of electron devices.

Editions in English, French, German, Spanish and Dutch can be supplied.

Valves

Book I

Deketh - FUNDAMENTALS OF RADIO-VALVE TECHNIQUE

by **J. Deketh**
535 pp, 6×9 in, 434 illus, 1949
Out of print.

Book II

DATA AND CIRCUITS OF RECEIVING AND AMPLIFYING VALVES (1933/1939)

427 pp, 6×9 in, 532 illus, 1949

Out of print. French edition can be supplied.

Book III

DATA AND CIRCUITS OF RECEIVING AND AMPLIFYING VALVES (1939/1941)

220 pp, 6×9 in, 267 illus, 1949

Out of print. Editions in German and Dutch can be supplied.

Book IIIa

Markus / Otte - DATA AND CIRCUITS OF VALVES: 1945-50

Compiled and Edited by **N. S. Markus & J. Otte**
xi + 487 pp, 6×9 in, 505 illus, 1952

A review with full descriptions and data, of receiver, amplifier and rectifier valves developed during the period 1945-1950, among which are the Rimlock and Noval series, together with their applications and circuits.

CONTENTS: "Rimlock" valves for radio receivers: AZ 41, EAF 42, EB 41, EBC 41, ECH 41, ECH 42, EF 41, EL 41, EL 42, EZ 40, EZ 41.
The "Rimlock" U-series of radio valves: UAF 42 UAF 41, UB 41, UBC 41, UCH.41, UCH 42, UF 41 UL 41, UY 41, UY 42, U 30.
The "Rimlock" D-series of radio valves: DAF 40, DAF 41, DK 40, DL 41.
Miscellaneous "Rimlock" amplifier valves: ECC 40, EF 40, EF 42, UF 42.
"Miniwatt" miniature valves: DAF 91, DF 91, DK 91, DL 92.
"Miniwatt" Noval series: EBF 80, UBF 80, E 9.
17 different diagrams for A.C./D.C. radio receivers, battery receivers and amplifiers.
Measuring and auxiliary equipment.

Editions in English, German and Dutch can be supplied.

Book IIIc

Jager - DATA AND CIRCUITS OF TELEVISION RECEIVING VALVES

by **J. Jager**
214 pp, 6×9 in, 226 illus, 1953

Out of print. Editions in French, German and Dutch can be supplied.

Book IV

Dammers et al. - APPLICATIONS OF THE ELECTRONIC VALVE IN RADIO RECEIVERS AND AMPLIFIERS (Vol. 1)

by **B. G. Dammers, J. Haantjes, J. Otte** and **H. van Suchtelen**
467 pp, 6×9 in, 256 illus, 1950
Out of print.

Book V

Dammers et al. - APPLICATIONS OF THE ELECTRONIC VALVE IN RADIO RECEIVERS AND AMPLIFIERS (Vol. 2)

by **B. G. Dammers, J. Haantjes, J. Otte** and **H. van Suchtelen**

Out of print.

Book VII

Heyboer/Zijlstra - TRANSMITTING VALVES

The use of pentodes, tetrodes and triodes in transmitter circuits

by **P. J. Heijboer & P. Zijlstra**
xii + 284 pp, 6×9 in, 256 illus, 1951

Deals with the various aspects of transmitting valves, as amplifiers, modulators, oscillators and frequency changers. The text is not overburdened with mathematics and is well illustrated by over 200 carefully prepared diagrams and photographs.

CONTENTS: 1. The technology of transmitting valves. 2. Classification. 3. The triode as R.F. power amplifier. 4. The tetrode and pentode as R.F. amplifier. 5. Modulation of an R.F. amplifier. 6. The transmitting valve as oscillator. 7. The transmitting valve as frequency multiplier. 8. Some special items. 9. Transmitting valves for

high frequencies generating very high frequencies by means of feed-back circuits. Appendix. Survey of principal technical data on Philips transmitting valves and rectifying valves for transmitters. Index.

Editions in English, French and Dutch can be supplied.

Book VIIIa

Uitjens - TELEVISION RECEIVER DESIGN I.F. STAGES

by **A. G. W. Uitjens**
Out of print. French edition can be supplied.

Book VIIIb

Neeteson - TELEVISION RECEIVER DESIGN FLYWHEEL SYNCHRONIZATION OF SAW-TOOTH GENERATORS

by **P. A. Neeteson**
Out of print. Editions in French and German can be supplied.

Book IX

Neeteson - VACUUM VALVES IN PULSE TECHNIQUE

by **P. A. Neeteson**
Second edition, ix + 195 pp, 6×9 in, 156 illus, 1959

Several methods are developed analysing networks containing vacuum tubes subjected to large, suddenly applied signals, the valve being treated as a non-linear network element. The information covers the wide field of electronic pulse equipment. This edition has been enlarged by an additional chapter dealing with a special class of pulse circuitry formed by several types of blocking oscillators, and an extensive bibliography.

CONTENTS: 1. Introduction. 2. Basic theory of switching. 3. Application of the theory to simple switching circuits. 4. Simple treatment of electron tubes as switches. 5. Some elements of the operations calculus. 6. Fundamental treatment of electron tubes as switching elements. 7. The multivibrator family. 8. Blocking-oscillator circuits.

Editions in English, French and German can be supplied.

Book X

Neeteson - ANALYSIS OF BISTABLE MULTIVIBRATOR OPERATION

The Eccles-Jordan flip-flop circuit

by **P. A. Neeteson**
Second edition, viii + 92 pp, 6×9 in, 40 illus, 1960

A thorough analysis of the dynamic behaviour of the bistable multivibrator which, although conceived by Eccles and Jordan as early as 1919, has only started within the last ten years to play an important role in electronic pulse apparatus, within which field the counting machines occupy an important position.

CONTENTS: 1. General introduction. 2. Survey of literature. 3. Introduction to the problem. 4. Opening or closing of switches in a network. 5. The static condition of the bistable multivibrator. 6. The dynamic condition. 7. The complete trigger cycle. 8. The trigger sensitivity. 9. The triggering speed. 10. Design considerations. 11. Variations of the fundamental circuit and way of triggering. 12. Some actual bistable multivibrator circuits. 13. Conclusion.

English edition can be supplied.

Book XI

U.H.F. TUBES FOR COMMUNICATION AND MEASURING EQUIPMENT

by Members of Philips Electron Tube Division
viii + 70 pp, 6×9 in, 76 illus, 1957

Describes in detail the tube range for U.H.F. and V.H.F. waves and also deals with some applications of valves for the measurement of the noise factor at these high frequencies.

CONTENTS: 1. Introduction. 2. Subminiature U.H.F. triode DC 70. 3. U.H.F. triode EC 80 for grounded-grid circuits. 4. U.H.F. oscillator triode EC 81. 5. U.H.F. disc-seal triode EC 55. 6. S.H.F. disc-seal triodes EC 56 and EC 57. 7. Reflex-klystrons 2K25 and 723 A/B. 8. Standard noise sources K81A, K50A and K51A.

English edition can be supplied.

Book XII

TUBES FOR COMPUTERS

by Members of Philips Electron Tube Division
ix + 53 pp, 6×9 in, 59 illus, 1956

The thermionic valve, in its function of inertialess switch, is one of the essential component parts of an electronic computer. This book describes these specialy designed computer valves.

CONTENTS: Introduction. General notes on computer circuits. Requirements imposed on tubes in multivibrator and gate circuits. Vacuum tubes for use in high-speed computers. Tubes for use in low-speed computers. Constructional.

English edition can be supplied.

Book XIII

INDUSTRIAL RECTIFYING TUBES

by Members of Philips Electron Tube Division
x + 116 pp, 6×9 in, 100 illus, 12 tables, 1957

In this book the operation, construction and application of hot-cathode gasfilled rectifying tubes used in battery chargers, power rectifiers, cinema rectifiers and D.C. arc welders are discussed. Data are given for a range of rectifying tubes suitable for these applications.

CONTENTS: Industrial rectifying tubes. Battery chargers. Industrial rectifiers. Cinema rectifiers. Welding rectifiers. Rectifying tubes. Auxiliary equipment. Glossary of symbols.

English edition can be supplied.

Book XIV

Boekhorst/Stolk - TELEVISION DEFLECTION SYSTEMS

by **A. Boekhorst & J. Stolk**
x + 218 pp, 6×9 in, 142 illus, 4 pp photos, 1962

Deals with the problems relating to the deflection of the electron beam in the television picture tube. The requirements imposed by the deflection circuits on the valves are extensively discussed, as are the problems relating to the design of line and field output transformers.

CONTENTS: 1. Introduction. 2. The picture tube. 3. External accessories. 4. Deflection of the electron beam. 5. The deflection coils. 6. Deflection circuits. 7. The deflection circuit with series efficiency diode. 8. Generation of the high accellerating for the picture tube voltage E.H.T. 9. The output valves. 10. The field deflection.

Editions in English, French and German can be supplied.

Book XV

Hinkel - MAGNETRONS

by **K. Hinkel**
viii + 94 pp, 6×9 in, 55 illus, 6 pp photos, 1961

The book is meant as an introduction for technologists and students to the applications of microwaves in general and magnetrons in particular; especially to the physical background and properties of this kind of tube. It is short, clear, and well-illustrated with both photographs and circuit diagrams.

CONTENTS: 1. Introduction. 2. The electrical mechanism. 3. The circuit. 4. Conditions for oscillation. 5. Examples of practical delay lines and cathodes. 6. The characteristics of magnetrons.

Editions in English, French, German and Spanish can be supplied.

Book XVI

Van der Horst - GAS-DISCHARGE TUBES

by **H. L. van der Horst**
xiii + 318 pp, 6×9 in, 219 illus, 8 pp photos, 1 tipped-in sheet with multicolour print, 1964

The operation of gas discharge devices and their construction are fully dealt with and practical details of typical applications are given. There are chapters on hot and cold cathode types, thyratrons and mercury cathode tubes.

CONTENTS: 1. Physical principles. 2. The construction of a gas-discharge tube. 3. Hot-cathode rectifier tubes. 4. Thyratrons. 5. Cold-cathode tubes. 6. Mercury-cathode tubes. 7. Photocells with gas amplification. 8. Special tubes. Physical constants. An abstract of "The Tron Family".

Editions in English and French can be supplied.

Book XVII

Durand - LES THYRATRONS A CATHODE FROIDE (Cold cathode trigger tubes)

by **M. Durand**
xiv + 266 pp, 6×9 in, 300 illus and 4 pp photos, 1963

Editions in French, German and Spanish can be supplied.

Charin - ELECTRONIQUE (Electronics)

Vol. I: Tubes à vide en BF, tubes à gaz

by **L. Charin**
Second edition, xi + 207 pp, 6×9 in, 102 illus, 1968

Familiarizes the reader with calculations and experiments with electronic equipment and deals particularly with vacuum tubes in the field of audiofrequency amplification.

CONTENTS: 1. Thermionic emission. Diode. Rectification, filtering. 2. Triode: properties and characteristics. 3. Cathode-ray oscilloscope oscillography. 4. Amplification. 5. Negative feedback. Principle of control with negative feedback. Negative voltage feedback. Performences. 6. Tetrode, pentode and beam tetrode. 7. Voltage amplification with pentode valves; tuned load. 8. General remarks on sinusoidal oscillation, amplitude modulation and linear detection with vacuum valves. 9. Non-linear distortion. 10. Power valve with a low-frequency output transformer load. 11. Low frequency amplifier with negative feedback over two stages; performances. 12. Symmetrical amplifiers. 13. Appendix.

Editions in French and German can be supplied.

Charin - ELECTRONIQUE (Electronics)

Vol. II: Transistors en BF

by **L. Charin**
xii + 205 pp, 6×9 in, 104 illus, 1965
French edition can be supplied.

Kroes - TUBE AND SEMICONDUCTOR SELECTION GUIDE 1960/61

by **Th. J. Kroes**
180 pp, 6×9 in, 19 illus., 1960
Out of print.

Swenne - THYRATRONS

by **C. M. Swenne**
Second enlarged edition, viii + 73 pp, 5¾×8½ in, 68 illus, 2 photos, 1964

Construction, operation and characteristics of these switching devices much used in relay and timing circuits, converters and speed regulators.

CONTENTS: 1. Physical principles. 2. Electrical characteristics. 3. Basic circuits. 4. Applications of thyratrons. Technical data of current thyratron types.

Editions in English, French, German, Spanish and Dutch can be supplied.

Semiconductors

Boon - GERMANIUM DIODES

by **S. D. Boon**
90 pp, 5¾×8½ in, 72 illus, 1956
Out of print.

Carter/Donker - PHOTO-ELECTRIC DEVICES IN THEORY AND PRACTICE

by **Harley Carter A.M.I.E.E. & Martine Donker**
viii + 130 pp, 6×9 in, 124 illus, 16 photos, 1963

This book fills a gap in current literature by relating the principles to practical industrial applications in a manner which will be of value both to engineers and technicians. It appeals to all engineers and technicians seeking to relate the academic theory of photo-electric to practical industrial applications whilst many senior students in both Grammar Schools and Technical Colleges will find it a valuable instruction to a fascinating and increasingly important branch of electronics.

CONTENTS: 1. Introductory. 2. The electrical properties of solid materials. 3. Photo-electric effects. 4. Photometry concepts, definitions and units. 5. Properties and characteristics of photosensitive devices. 6. Construction of photosensitive devices. 7. Applications of photosensitive devices. 8. Illumination of photosensitive devices. 9. Applications. Appendix.

Editions in English, French, German, Spanish and Dutch can be supplied.

Cassignol - SEMICONDUCTORS

Volume I: Physics and electronics

by **E. J. Cassignol**, Professor at the Technical University, Toulouse
viii + 310 pp, 6×9 in, 241 illus, 1966

Presents a complete physical study on diodes and transistors and also treats in detail the equivalent circuits for audio and radio frequencies, in particular those used in transistorized circuitry.

CONTENTS: 1. Fundamental principles of semiconductors. 2. Diodes. 3. Junction transistors. 4. Some recent semiconductor devices. 5. Transistor in static state. 6. Audio-frequent transistic equivalent circuits. 7. Linear amplification with transistors. 8. Biasing and stabilization. 9. Transistors for high frequencies. 10. Transistors as switches. Appendix: Proof of Einstein's equation.

Editions in English, French, German and Spanish can be supplied.

Cassignol - SEMICONDUCTORS

Volume II: Linear Circuits

by **E. J. Cassignol**, Professor at the Technical University, Toulouse
xiii + 337 pp, 6×9 in, 214 illus, 1967

CONTENTS: PART I - INTRODUCTION TO THE STUDY OF TRANSISTORIZED CIRCUITS: 1. Methods of study of linear systems. 2. Fundamental concepts relating to semiconductor devices.

PART II - LINEAR ELECTRONICS: 3. Audio-frequency voltage amplifiers. 4. Video-frequency amplifiers. 5. Power amplifiers. 6. Theory and applications of negative feedback. 7. Direct current amplifiers. 8. Tuned amplifiers. Exercises.

Editions in English, French, German and Spanish can be supplied.

Cassignol - SEMICONDUCTORS

Volume III: Non-linear circuits

by **E. J. Cassignol**, Professor at the Technical University, Toulouse
xii + 265 pp, 6×9 in, 250 illus, 1967

CONTENTS: PART I - INTRODUCTION TO THE STUDY OF TRANSISTOR CIRCUITS: 1. Methods for the study of linear systems. 2. Fundamental concepts concerning semiconductor devices.

PART II: LINEAR ELECTRONICS: 3. Audio-frequency amplifiers. 4. Video-frequency voltage amplifiers. 5. Power amplifiers. 6. Theory and applications of negative feedback. 7. DC amplifiers. 8. High-frequency amplifier. Exercises.

Editions in English, French and Spanish can be supplied.

Fontaine - DIODES AND TRANSISTORS

General principles

by **G. Fontaine**

viii + 475 pp, $5\frac{3}{4} \times 8\frac{1}{3}$ in, 445 col. illus, 1964

In a capable and very efficient manner the author succeeded in exposing the mechanism and functioning of transistors and their applications. In explaining this, more use is made of drawings and characteristics rather than mathematical treatment. A very original way of instruction, which has proved its practical value.

CONTENTS: PART ONE - PHYSICAL PHENOMENA IN SEMICONDUCTORS. 1. General considerations. 2. Definition.

PART TWO - DIODES. 3. Junction diodes. 4. Point-contact diodes. 5. Analysis of diode characteristics. 6. The breakdown of a junction. 7. The influence of temperature. 8. Comparison between thermionic diodes and semiconductor diodes. 9. Rectification. 10. Comparison between the operating of a semiconductor diode and a thermionic diode as detector. 11. Operation at radio frequencies.

PART THREE - TRANSISTORS. 12. General considerations. 13. The junction transistor. 14. The technology of the transistor. 15. Comparison between valves and transistors. 16. The mode of operation of transistors. 17. PNP-transistors. 18. NPN-transistors. 19. Consideration of transistor characteristics. 20. Transistor parameters. 21. Forward transfer admittance or slope. 22. Methods of driving small-signal transistors. 23. Methods of driving power transistors. 24. Matched drive. 25. Distortion and power amplification. 26. Transistor bias voltages. 27. Thermal stability. 28. The load impedance. 29. Transistors connected in cascade. 30. The use of transistors at radio frequencies. 31. The transistor as an active element. 23. The transistor as a passive element. 33. The influence of the collector current and of the frequency on the various R.F. parameters of the transistor. 34. Possible circuit configurations for transistors. 35. The common-emitter configuration. 36. The common-base configuration. 37. The common-collector configuration. 38. Comparison of the various configurations.

Editions in English, French, German, Spanish and Dutch can be supplied.

Fontaine - TRANSISTORS FOR AUDIOFREQUENCY

Audiofrequency amplification

by **G. Fontaine**

xii + 381 pp, $5\frac{3}{4} \times 8\frac{1}{3}$ in, 458 col. illus, 1966

This and the succeeding books use the same successful method of explanation as the author's foregoing work.

CONTENTS: 1. Concentration diagram. 2. The transistor in the small signal region. 3. Equivalent circuits. 4. The transistor in the large signal region. 5. Symmetric stages. 6. Behaviour of the transistor in the R.F. range. 7. R.F. amplification stage. 8. Graphical consideration of an I.F. amplifier. Appendix.

Editions in English, Dutch, Spanish and French can be supplied.

Fontaine - TRANSISTORS FOR RADIOFREQUENCY

RF amplifiers and oscillators

by **G. Fontaine**

approx. 400 pp, $5\frac{3}{4} \times 8\frac{1}{3}$ in, col. illus.

In preparation. To be published in 1969.

Fontaine - TRANSISTORS FOR PULSE TECHNIQUES

Logical circuits and industrial applications

by **G. Fontaine**

approx. 450 pp, $5\frac{3}{4} \times 8\frac{1}{3}$ in, col. illus.

In preparation. To be published in 1969.

Gaudry - THYRISTORS

Action and use

by **M. Gaudry**

185 pp, 6×9 in, 177 illus.

The book treats the principles and methods of the application of thyristors. It is indispensable for technicians, student in electronics and in application laboratories.

English and French edition in preparation. To be published in 1969.

Kaden - TRANSISTORS APPLIED

by **H. E. Kaden**

x + 194 pp, 6×9 in, 128 illus, 1965

Explains the basic principles of transistors, especially for those familiar with corresponding valve principles and uses, with which parallels are drawn. Simple mathematics and clear diagrams are used to clarify the various amplifying techniques, their associated circuits and the basic calculations involved.

CONTENTS: 1. Introduction. 2. Physical principles of the transistor. 3. Symbols, signs, fundamental circuit. 4. The four quadrant characteristic field. 5. Two pole representation of the transistor. 6. Transistor equivalent circuit. 7. Fixing the operating point. 8. Apparent internal resistance with load variation. 9. Transistors with negative feedback. 10. The influence of temperature on the transistor. 11. Transistor leakage currents. 12. Direct current amplification. 13. Characteristic values and their dependence upon the working point. 14. The common collector circuit. 15. The common base circuit. 16. High frequency behaviour of the transistor. 17. Multistage AF amplifiers. 18. Resonance amplifier. 19. Amplifier noise. 20. Summary of comparison between the transistor and electron tube.

Editions in English, French, German and Spanish can be supplied.

Klamm - SEMICONDUCTOR PHYSICS IN GRAPHICS AND COLOUR

by **P. Klamm**

235 pp, $5\frac{3}{4} \times 8\frac{1}{3}$ in, 92 illus, in six colours

A reliable guide through the existing mix-up

of definitions, phenomena, procedures and constructions.
Features: instructive illustrations and very logical presentation of the material.

In preparation. To be published in 1969.

Kooi - THE SURFACE PROPERTIES OF OXIDIZED SILICON

by **E. Kooi**
x + 134 pp, 6×9 in, 57 illus, 1967

Written originally as a thesis for a doctor's degree in applied physics at the Technical University, Eindhoven.

CONTENTS: 1. Introduction. 2. General review of the effect of silicon-dioxide coatings on the surface properties of silicon and the importance of these coatings in semiconductor-device technology. 3. Diffusion of phosphorus into silicon and the masking action of silicon-dioxide films. 4. Effects of low-temperature heat treatments on the surface properties of oxidized silicon. 5. Influence of X-ray irradiation on the charge distributions in metal-oxide-silicon structures. 6. Effects of ionizing irradiations on the properties of oxide-covered silicon surfaces. 7. The surface charge in oxidized silicon.

English edition can be supplied.

Korthals Altes * - TRANSISTORS IN LOGICAL CIRCUITS

by **J. Ph. Korthals Altes**
viii + 117 pp, 5¾×8½ in, 125 illus, 2 photos, 1965

Starting from already known analogue relay circuits, this book describes in a special way the logical electronic circuits using semiconductors.

CONTENTS: Some concepts of switch algebra - the twofold or binary system - the transistor as a switch - diodes - AND-, OR and NOT operation with semiconductors - signal amplification - bistable stages - multivibrators - counting switching circuits - arithmetical operations - observations - examples of applications - practical hints.

Editions in English, French, German and Dutch can be supplied.

Le Can, Hart & De Ruyter - THE JUNCTION TRANSISTOR AS A SWITCHING DEVICE

by **C. Le Can, K. Hart & C. de Ruyter**
x + 230 pp, 6×9 in, 135 illus, 16 pp diagrams, 1962

A survey of the large signal behaviour of alloy junction diodes and transistors, showing how a link may be established between the physics and applications of semiconductors.

CONTENTS: 1. The electrical behaviour of junction diodes. 2. The steady state behaviour of alloy junction transistors. 3. Transient behaviour and fundamental transistor parameters. 4. The transistor electrical equivalent circuit and some of its applications. References. Appendix.

Out of print. Editions in French and German can be supplied.

Neeteson - JUNCTION TRANSISTORS IN PULSE CIRCUITS

by **P. A. Neeteson**
Second edition, viii + 144 pp, 6×9 in, 109 illus, 1961

Gives methods which may be used to analyse the fundamental pulse circuits containing transistors and hence to simplify their design. Examples are included showing how to combine these basic circuits to logic devices.

CONTENTS: 1. Introduction. 2. Survey of fundamental pulse circuits. 3. Pulse generators. 4. Pulse shapers. 5. Frequency divider and voltage-level switch. 6. Some auxiliary pulse circuits. 7. Some logic circuits.

Editions in English, French and German can be supplied.

Sjobbema - USING TRANSISTORS

by **D. J. W. Sjobbema**
Third enlarged edition, viii + 136 pp, 5¾×8½ in, 143 illus, 1964

A clear survey of the essentials of transistor technology with many practical examples of how to build devices with transistors.

CONTENTS: 1. Introduction. 2. Basic physical ideas. 3. Transistor characteristics. 4. The influence of temperature changes on the behaviour of transistors. 5. Circuit techniques. 6. Practical hints for mounting and servicing. 7. Measurements. 8. Examples of transistor circuits.

Editions in English, French, German, Spanish and Dutch can be supplied.

Vorobeitchik - PARAMETRIC AMPLIFIERS WITH DIODES

by **Vorobeitchik**
approx. 500 pp, 6×9 in, 240 illus

In preparation. To be published in 1969.

For related titles, see also:

Hellings - TRANSISTOR AUDIO AMPLIFIERS, page 12

Hetterscheid - TRANSISTOR BANDPASS AMPLIFIERS, page 15

Hetterscheid - DESIGNING TRANSISTOR I.F. AMPLIFIERS, page 15

Julander - GUIDE TO RADIO TECHNIQUE, Vol. 1, page 16

Rognon/Duru - SERVICING TRANSISTORIZED RADIO RECEIVERS, page 16

Hellbarth - TRANSISTORTECHNIK FÜR KURZWELLENAMATEURE, page 15

Circuits

Appels/Geels - HANDBOOK OF RELAY SWITCHING TECHNIQUE

by **J. Appels & B. Geels**

x + 316 pp, 6×9 in, 390 illus, 1966

Describes the basic elements of relay switching theory without the use of too intricate mathematics. The most important codes are dealt with, and practical examples and questions are included.

CONTENTS: 1. Circuit elements. 2. Elementary circuits. 3. Switching algebra. 4. Codes. 5. Counter circuits. 6. Decoding circuits. 7. Checking circuits. 8. Some computing circuits with relays. 9. Locking circuits. 10. Connecting circuits. 11. Register circuits. 12. Translation circuits. 13. Identification and analysis circuits. 14. Symbols, circuit diagrams and sequence diagrams. 15. Answers to problems.

Editions in English, German and Dutch can be supplied.

Bruinsma * - CIRCUITS USING DIRECT CURRENT RELAYS

by **A. H. Bruinsma**

ix + 86 pp, 5¾×8⅓ in, 66 illus, 1965

This book gives an insight into a number of uncommon circuits which have already proved themselves in practice and the possibility of applying direct current relays in commanded or programmed sequence circuits is fully explained.

CONTENTS: General data of relays for direct current supply - operation of a relay- retarding a relay - short-term relay operation - operating a relay by means of physical phenomena - commanded sequence circuits - automatic sequence circuits with commanded start - oscillating circuits - some special circuits.

Editions in English, French, German and Dutch can be supplied.

Bruinsma - MULTIVIBRATOR CIRCUITS

by **A. H. Bruinsma**

Second edition, viii + 66 pp, 5¾×8⅓ in, 41 illus, 1960

A short clear examination of the type of circuit largely used in devices described in the book PRACTICAL ROBOT CIRCUITS by the same author.

CONTENTS: MULTIVIBRATOR CIRCUITS. Operating principles of free-running multivibrator circuits. Determination of pulse amplitude. Determination of pulse-width. Pulse shape. Pulse differentiation. Synchronization. Monostable circuits. Monostable circuits in cascade. Bistable circuits. Bistable circuits in cascade. Pentodes in multivibrator circuits. Larger pulse-amplitude at the anode. The "knee" in pentode characteristics. Triggering relays. Bistable circuits as D.C. voltage amplifiers. The blocking of monostable circuits. GATING VALVES. Fast

Editions in English, French, German, Spanish and Dutch can be supplied.

Bruinsma - PRACTICAL ROBOT CIRCUITS

by **A. H. Bruinsma**

ix + 125 pp, 5¾×8⅓ in, 53 illus, 8 pp photos, 4 folding circuit diagrams, 1960

Describes with full circuit data the electronic dog that comes at call, avoids obstacles in the dark and turns to a hot snack; and a machine that plays noughts and crosses and groans when it loses.

CONTENTS: Foreword. Nomenclature. I. BASIC PRINCIPLES OF ROBOT CIRCUITS. II. ELECTRONIC SENSORY ORGANS. 1. Sight. The photo-electric cell as an eye. Stereoscopic vision. The stereoscopic photo-electric cell circuit. 2. Hearing. The microphone as an ear. Stereophonic hearing. Stereophonic microphone circuit. Response to certain sounds. 3. The sense of touch. The feeling of objects. Feeling differences in temperature. The "sensing" of objects without contact (seeing in the dark). The acoustic radar system. III ELECTRONIC BRAINS. 1. The assimilation of visual stimuli. 2. The assimilation of stimuli associated with the hearing of the code signal. The response circuit. 3. The assimilation of stimuli associated with the hearing of the name. The assimilation of contact stimuli. The assimilation of temperature stimuli. The assimilation of stimuli associated with the radar system. The reversing circuit. IV. PROBLEMS ASSOCIATED WITH THE CONSTRUCTION OF THE ROBOT. 1. Mechanical design. Walking. The reversing circuit. The steering mechanism. Suspension. 2. Supply. Heater voltage. Anode voltage. V. ELECTRONIC INTELLIGENCE. On thinking machines. Noughts and crosses. Analysis of the game. Practical design of the robot. Germanium diodes as relay contacts. "Game lost" circuit. "Game won" circuit. Investigation of player's chances of winning. Voluntary moves. The error circuit. The audible reactions of the robot. Supply.

Editions in English, French, German, Spanish and Dutch can be supplied.

Bruinsma - REMOTE CONTROL BY RADIO

by **A. H. Bruinsma**

104 pp, 5¾×8⅓ in, 74 illus, 1954

Out of print. Editions in French, German and Dutch can be supplied.

Hellings - RADAR

by **S. J. Hellings**

viii + 146 pp, 5¾×8⅓ in, 43 illus, 16 photo pp, 1967

CONTENTS: Principles - Historical survey - The principle of radar - Choise of parameters for a radar installation - Range - The earth's effect on the radiation diagram - The building blocks of the radar system - Radar indicator presentation - Applications.

Dutch edition can be supplied.

Hellings - TRANSISTOR AUDIO AMPLIFIERS

by **S. J. Hellings**

x + 337 pp, 6×9 in, 388 illus, 1968

CONTENTS: PART I - THE PREAMPLIFIER: 1. Theoretical considerations. 2. Properties of materials from which transistors are made. 3. The P-N junction.

4. The transistor. 5. Network theory. 6. Relationship between the h-parameters and the transistor properties. 7. The transistor characteristics. 8. Computation of simple transistor circuits (common emitter). 9. Use of feedback in transistor circuits. 10. Effect of temperature on the transistor setting. 11. Use of transistors as limited by frequency; interstage coupling. 12. Use of feedback in amplifier circuits. 13. The effect of transistors on preceding circuits. 14. Tone control in transistor amplifiers. 15. Description of a complete preamplifier. 16. Compensation of the recording characteristics of gramophone records. 17. Noise produced by resistors and transistors.

PART II - THE POWER AMPLIFIER: 18. Introduction. 19. The single-ended amplifier. 20. Supply units. 21. Stability of an amplifier employing feedback. 22. Special circuits. 23. Distortion. 24. Mounting of transistors. 25. How to use transistor data. 26. Nomenclature system for semiconductors. 27. Use of non-linear elements in transistor circuits. 28. Dependence of the h-parameters on the transistor operating conditions. 29. Behaviour of the transistor currents on small base drives and the leakage currents flowing during such operating conditions.

English edition can be supplied.

Koroncai/Alving - DE TRANSISTOR ALS ELEKTRONISCHE SCHAKELAAR (The transistor as an electronic switch)

by **A. Koroncai & R. Alving**
x + 249 pp, 6×9 in, 404 illus, 1966

Provides a detailed description of the switching function of transistors and supplies many aids in dimensioning the circuit elements for the purpose needed. A book for the designer just entering the field of digital electronics.

CONTENTS: 1. Electronic switches using transistors. 2. Switching times of transistor switches. 3. Vibrator circuits and their control. 4. Logic circuits. 5. Phototransistor as switch. 7. Digital measurement and control. 8. Digital equipment without indication or with analogue indication. 9. Appendix.

Editions in German and Dutch can be supplied.

Markus - BASIC ELECTRONIC CIRCUITS

by **N. S. Markus**
approx. 220 pp, 7×11 in, 250 col.illus.

A valuable reference book for engineers which gives the basic circuits in the electronics field together with the wave forms of their essential currents and voltages. Circuits and wave forms have been drawn in four colours.

In preparation. To be published in 1969.

Orsini - THEORIE ET PRATIQUE DES CIRCUITS ELECTRONIQUES (Electronic circuits)

by **L. Q. Orsini**
xi + 392 pages, 6×9 in, 364 illus, 1967

French edition can be supplied.

Rodenhuis - DRY-BATTERY RECEIVERS WITH MINIATURE VALVES

by **E. Rodenhuis**
242 pp, $5^3/_4 \times 8^1/_3$ in, 227 illus., 1957

Out of print. Editions in French, German and Dutch can be supplied.

Rodenhuis - HI-FI AMPLIFIER CIRCUITS

by **E. Rodenhuis**
Second edition, vi + 125 pp, $5\frac{3}{4} \times 8\frac{1}{4}$ in, 76 illus, 1965

Two new circuits, both designed around the triode-power pentode ECL 86, offering very attractive characteristics for amplifier design, are added in this enlarged new edition.

CONTENTS: 1. General considerations of the design of hi-fi amplifiers. 2. Power amplifier circuits. 3. Preamplifiers.

Editions in English, German, Spanish and Dutch can be supplied.

Rodenhuis - VALVES FOR A.F. AMPLIFIERS

A practical handbook for the construction of sound amplifiers, with full descriptions and details of 8 circuits.

by **E. Rodenhuis**
140 pp, $5\frac{3}{4} \times 8\frac{1}{4}$ in, 94 illus, 5 double-size schematic diagrams, 1954.

Out of print. Editions in French and Spanish can be supplied.

For related titles see also:

Kretzmann - INDUSTRIAL ELECTRONICS HANDBOOK, page 20

Kretzmann - INDUSTRIAL ELECTRONIC CIRCUITS, page 20

Magnetism

Kroon - LABORATORY MAGNETS

by **D. J. Kroon**
x + 252 pp, 6×9 in, 159 illus, 4 pp photos, 1968

The book is of practical help for the laboratory worker who is not a specialist on magnetic fields. The results of all calculations and observations are presented in such a way that they can be put to practical use immediately. One can make an experimental approach to design armed only with the designing curves here given, and a slide rule; the order of accuracy of the latter is sufficient for the calculation of such magnets.

CONTENTS: 1. Introduction. 2. Basic principles. 3. Fields of surface charges and dipole distributions. 4. Coil fields. 5. Flux density and ampere-turns. 6. Core, yoke and coil dimensions. 7. Design procedure for electromagnets. 8. Cooling. 9. Constructional details. 10. Examples. 11. Comparison of magnets. 12. Power supplies. 13. Field homogeneity. 14. Pulsed fields. 15. Permanent magnets. 16. Measurement of magnetic fields. 17. Bibliography.

English edition can be supplied.

Neeteson - SQUARE-LOOP FERRITE CORE SWITCHING

by **P. A. Neeteson**

xi + 183 pp, 6×9 in, 102 illus, 4 pp with oscillograms, 1964

This book will enable application and development engineers to calculate in advance with reasonable accuracy the behaviour of ferrite cores in the networks. Several practical circuits containing ferrite cores as network elements are analysed to illustrate the usefulness of the formulae given, and theoretical results are compared with those derived from experimental tests and measurements.

CONTENTS: 1. Introduction. 2. The mechanism of magnetizing a ferromagnetic material. 3. Static properties of square-loop ferrite cores. 4. Dynamic properties of switch cores. 5. Analysis of the irreversible switching process in an unloaded core. 6. Resistively loaded core. 7. Inductively loaded core. 8. Core loaded by a resistance and an inductance in parallel. 9. Core loaded by other cores. 10. Experimental results compared with analytical predictions. 11. Switch cores driving a coincident-current magnetic core memory. 12. Cores with a large ratio of outer to inner diameter. 13. Cores driven by other than step functions. 14. Switch cores driving a world-selection magnetic core memory. 15. Doublecore switch driving a memory line. 16. Energy dissipation in switched ferrite cores. 17. Switching cores by means of a voltage source. 18. Ferrite-core shift registers. 19. Dynamic hysteresis curves.

Editions in English, French and German can be supplied.

Olsen - APPLIED MAGNETISM

A study in quantities

by **E. Olsen**

x + 144 pp, 6×9 in, 84 illus, 1966

A general introduction into applied magnetism. A great number of terms and definitions are quoted which have proved to be necessary in the various branches of a.c. technique. The author himself is an expert in this field and as a member of the standardization committee of the I.E.C. for this domain he is also conversant with the latest symbols and definitions.

CONTENTS: 1. Current i and magnetic field strength H. 2. Voltage u and magnetic flux density B. 3. Self-inductance L and permeability μ. 4. General observations on the magnetic circuit with losses. 5. The complex permeability. 6. The magnetic circuit consisting partially of ferromagnetic material. 7. Losses. 8. Distortion. 9. Some conceptions from the microwave region. 10. Terms form the field of application of square loop materials. 11. Magnetostriction.

Editions in English, German and Dutch can be supplied.

Quartly - SCHALTUNGSTECHNIK MIT RECHTECKFERRITEN (Square-loop ferrite circuitry)

Speicherschaltungen und logische Schaltungen

by **C. J. Quartly**

x + 181 pp, 6×9 in, 93 illus, 1965

Editions in German and French can be supplied.

Smit/Wijn - FERRITES

Physical properties of ferromagnetic oxides in relation to their application

by **J. Smit & H. P. Wijn**

xiv + 369 pp, 6×9 in, 244 illus, 1959

The characteristics of ferrites that are of importance for application purposes are presented and discussed and, whenever possible, explained in terms of intrinsic properties. The authors deal with many theoretical problems of phenomena occurring in these materials during processes of magnetization, and make greater use of simple models than of rigorous mathematical deviations.

CONTENTS: 1. On the properties and the origin of magnetic fields in matter. 2. Theory of ferromagnetism. 3. Ferrimagnetism. 4. Magnetic anisotropies. 5. Magnetization processes. 6. Dynamocs of magnetization processes. 7. Methods of measuring ferromagnetic properties. 8. Intrinsic properties of ferrites with spinel structure. 9. Intrinsic properties of ferrites with hexagonal crystal structure. 10. Intrinsic properties of ferrites with garnet structure. 11. Structure of polycrystalline ferrites. 12. Electrical properties. 13. Static initial permeability. 14. Frequency-dependence of the initial permeability. 15. Static hysteresis loops. 16. Dynamic properties at high field strengths.

Out of print. Editions in French, German and Spanish can be supplied.

Van Eldik/Cornelius - A.C. DEVICES WITH IRON CORES

Principles and design of transformers, chokes, transductors and leakage transformers

by **P. F. van Eldik & P. Cornelius**

viii + 84 pp, 6×9 in, 26 illus, 1962

An interesting new approach to the design of transformers, chokes and similar devices without the use of advanced mathematics.

CONTENTS: 1. General principles. 2. Calculation of data for a transformer. 3. Calculation of data for a choke. 4. Calculation of data for a transductor. 5. Calculation of data for a leakage transformer. 6. Further points relating to the electromagnetic side. 7. The thermal aspect. Appendix: Theoretical and practical hints.

Editions in English, French, German, Spanish and Dutch can be supplied.

Radio and television

Black * - DIRECT CURRENT AND MAGNETISM

by **Edgar J. Black**

viii + 119 pp, 5¾×8½ in, 92 illus, 1964

This book gives a very simple account of basic electrical theory. Topics dealt with include the origin and generation of electricity, the relationship between direct current and voltage (Ohm's Law), the construction and use of resistances, accumulators and dry cells, the nature of magnetism and the way D.C. meters work.

Editions in English, French and Dutch can be supplied.

Black * - ALTERNATING CURRENT AND ACOUSTICS

by **Edgar J. Black**

viii + 126 pp, 5¾×8½ in, 86 illus, 1964

The first part of this book deals in simple terms with the origin and generation of alternating current, the construction of coils and capacitors and the effect of various combinations of resistances, coils and capacitors on an alternating current. The second part deals with the nature of acoustics and the construction and operation of the various devices used for sound recording and reproduction.

Editions in English, French and Dutch can be supplied.

Black * - RADIO VALVES

by **Edgar J. Black**

viii + 126 pp, 5¾×8½ in, 90 illus, 1964

This book deals in simple terms with the equipment needed for the reception of radio waves, the amplification of radio signals by radio valves and the nomenclature of radio valves. Rectifiers and simple A.C. meters are also discussed.

Editions in English and Dutch can be supplied.

Black * - A.F. AMPLIFICATION

by **Edgar J. Black**

viii + 109 pp, 5¾×8½ in, 82 illus, 1964

A.F. Amplification is widely used in radio and TV sets. This book explains how such amplification works, and what problems are met in designing an A.F. amplifier. Measuring equipment making use of A.F. amplification is also dealt with.

Editions in English and Dutch can be supplied.

Bochum - MATHEMATIK FÜR RUNDFUNK- FERNSEH- ELEKTRONIK-TECHNIKER (Mathematics for radio, tv and electronics engineers)

Anleitung für Ausbildung und Beruf

by **H. Bochum**

xi + 450 pp, 6×9 in, 313 illus, 1967

German edition can be supplied.

Hellbarth - TRANSISTORTECHNIK FÜR KURZWELLENAMATEURE (Transistor technique for short wave radio amateurs)

Empfänger, Sender, Hilfsgeräte

by **H. Hellbarth**

viii + 258 pp, 6×9 in, 213 illus, 6 pp photos, 5 tipped-in sheets, 1967

German edition can be supplied.

Hetterscheid - TRANSISTOR BANDPASS AMPLIFIERS

by **W. Th. H. Hetterscheid**

xxiv + 314 pp, 6×9 in, 189 illus, 2 col. plates, 1964

Deals with the theory of analysis and design of selective amplifiers as used in the I.F. parts of radio, television and radar receivers, especially in relation to the application of transistors. Single-stage amplifiers as well as multi-stage amplifiers, with arbitrary types of interstage or terminating networks are treated in detail as regards stability, power gain, amplitude response curve and envelope delay curve.

CONTENTS: 1. Representation of transistors by a four-terminal network. 2. The various aspects of amplifier design. 3. Neutralization. 4. Single-stage amplifier with single-tubed bandpass filters. Optimization of power gain. 5. Single-stage amplifier with two double-tuned bandpass filters. 6. Multi-stage amplifiers with synchronous single-tuned bandpass filters. 7. Multistage amplifiers with double-tuned bandpass filters. 8. Multistage amplifier with arbitrary types of bandpass filters as interstage coupling networks. 9. Amplifiers with doubletuned bandpass filters with complex coupling coefficients. 10. Staggered tuning in transistor bandpass amplifiers. 11. Spreads in transistor amplifiers. 12. Effects of non-ideal transformers for coupling transistors and bandpass filters.

Editions in English, French and German can be supplied.

Hetterscheid - DESIGNING TRANSISTOR I.F. AMPLIFIERS

by **W. Th. H. Hetterscheid**

xii + 358 pp, 6×9 in, 138 illus, 96 col. charts, 1966

Deals with the practical aspects of the design

and construction of I.F. amplifiers with transistor for radio, television and radar receivers.

CONTENTS: 1. Introduction. 2. The design specification of I.F. amplifiers. 3. Spreads, tolerances and variations in I.F. amplifiers. 4. Transistor parameters. 5. Survey of I.F. amplifier design theory. 6. Neutralization. 7. Automatic gain control of transistor. 8. Practical design method for I.F. amplifiers. 9. Examples of amplifiers design. 10. Example of amplifier design taking into account deviations from nominal conditions. 11. Design examples of incorporating spreads – the choice of an A.G.C.-system for an I.F. amplifier of a television receiver. 12. The effects of spreads in transistor admittance parameters. 13. Example of calculating the gain performance of an I.F. amplifier for a television receiver. 14. Step-by-step method of designing I.F. amplifiers. 15. Design charts.

English edition can be supplied.

Julander - GUIDE TO RADIO TECHNIQUE

semiconductors

by **E. Julander**

x + 238 pp, 6×9 in, 214 illus, 1965

A clear introduction to the fundamentals of electronics and radio technique for those whose mathematical knowledge is limited, and who wish to acquire the theoretical knowledge necessary for a thorough understanding of circuits.

CONTENTS: 1. Fundamentals of electricity. 2. The complex numeral system. 3. Transmission units. 4. Electron tubes. 5. Semiconductor diodes and transistors. 6. Generation, propagation and modulation of electromagnetic waves. Appendix.

Editions in English, French, German, Spanish and Dutch can be supplied.

Neidig/Zwollo - RADIO STEREOPHONY

by **W. P. Neidig & P. W. Zwollo**

approx. 84 pp, 5¾×8⅓ in, 43 illus, 2 pp photos

CONTENTS: 1. The concept of stereophony. 2. Stereo techniques. 3. Stereophonic broadcasting. 4. The FCC system. 5. Characteristics of the FCC system. 6. Submodulators. 7. Stereo receivers. 8. Decoders, indicators and mono/stereo switches. 9. Testing stereo submodulators. 10. Adjusting and testing decoders. 11. Testing and adjusting indicators. App. Signal/noise ratio in the FCC system.

In preparation. To be published in 1969. Dutch edition can be supplied.

Van Oort - RADIOGOLVEN (Radio Waves)

Uitstraling, voortplanting, ontvangst

by **J. F. van Oort**

ix + 127 pp, 5¾×8⅓ in, 113 illus, 1968

Dutch edition can be supplied.

Otte et al. - FROM THE ELECTRON TO THE SUPERHET

A simplified course for the radio-service man

by **J. Otte, Ph. F. Salverda** and **C. J. van Willigen**

675 pp, 11×7½ in, 722 illus, 11 circuit diagrams, 1955

Out of print. Spanish edition can be supplied.

See Radio Servicing.

Rognon/Duru - SERVICING TRANSISTORIZED RADIO RECEIVERS

by **M. Rognon & P. Duru**

approx. 222 pp, 5¾×8⅓ in, 161 illus, 6 pp photos

An indispensable aid to every technician interested in transistorized receivers and their service.

In preparation. To be published in 1969. French and Spanish edition can be supplied.

Schaap - SHORT WAVE AMATEUR RADIO

by **J. Schaap**

viii + 160 pp, 5¾×8⅓ in, 129 illus, 8 pp photos, 7 fold-out diagrams, 1963

A concise reference book for the newcomer to amateur radio.

CONTENTS: 1. What is amateur radio? 2. Components used in amateur radio equipment. 3. Amateur receivers. 4. Amateur transmitters. 5. Modulation systems. 6. Aerials. 7. Measurements and measuring equipment. 8. Station planning and building. 9. Operating a station. 10. Practical examples. Appendix: Band spread calculations; Coil calculations; Table of enamelled copper wire values; Colour code; The amateur bands; Abridged list of countries; Morse code; Q-code; Amateur abbreviations; RST-code; QSL-cards and certificates; For those who want to know more.

Editions in English, French, German, Spanish and Dutch can be supplied.

Schanz* - STEREO HANDBOOK

by **G. W. Schanz**

viii + 129 pp, 5¾×8⅓ in, 99 illus. 1968

Brief survey to facilitate understanding and to give useful directions for the appropriate testing of stereo reproduction equipment.

CONTENTS: 1. Fundamentals of stereophonic sound perception. 2. LF stereophony. 3. HF stereophony. 4. Stereophonic radio transmission. 5. Stereophonic reception. 6. Testing LF stereophonic reproduction equipment. 7. Testing HF stereophonic decoders. 8. Measuring and testing instruments.

Editions in English and German can be supplied.

Sietsma - REPERTORIUM ELEKTRONICA (Electronics vademecum)

by **A. J. Sietsma**

viii + 192 pp, 6×9 in, 406 illus

Dutch edition in preparation. To be published in 1968.

Voorhoeve - LOW FREQUENCY AMPLIFICATION

by **N. A. J. Voorhoeve**
516 pp, 6×9 in, 467 illus, 1953
Out of print.

French edition can be supplied.

Duru- COMPRENEZ LA TELEVISION (Understanding television)

by **P. E. Duru**

Third edition, xxiv + 640 pp, 5¾×8⅓ in, 511 illus, 1965

Treatment of the television problems from a physical point of view.

Editions in French, German and Spanish can be supplied.

Holm - HOW TELEVISION WORKS

An illustrated non-mathematical account of its principles

by **W. A. Holm**
Second edition, xvii + 352 pp, 5¾×8⅓ in, 265 illus, 1964.

The most complicated electronic processes are explained astonishingly clear and accurate, and in many cases by means of ingenious diagrams. In this new edition the whole text is brought up to date; in particular the chapters on amplifiers, studio techniques and large screen projection.

CONTENTS: PART 1 - PRINCIPLES OF PICTURE TRANSMISSION: Splitting up and rebuilding the picture. Requirements for a practical picture transmission system. PART 2 - THE CATHODE RAY TUBE: Deflection of the spot of light and control of its brightness. Focussing the electron beam. The cathode ray tube as an instrument for picture reproduction. Sawtooth currents. The complete cathode ray tube. PART 3 - PICK-UP TUBES: The dissector tube. The iconoscope. The image iconoscope. The orthicon. The image orthicon. The vidicon and plumbicon. PART 4 - THE VIDEO SIGNAL: Interlaced scanning. Blanking. Synchronization signals. Equalizing pulses. The synchronizing generator. PART 5 - OSCILLATIONS; ELECTRONIC TUBES; PULSES. PART 6 - THE COMPLETE TELEVISION SIGNAL: The radiation of energy. Aerials and the propagation of radio waves. The modulation of the carrier wave. The sound signal. Frequency modulation. PART 7 - THE TELEVISION RECEIVER: The IF amplifier. The video amplifier. The time-base section. Power supply, installation and operation. Projection television. The various television standards.

Editions in English, German, Spanish and Dutch can be supplied.

Kerkhof/Werner - TELEVISIE (Television)

by **F. Kerkhof, P. Janssen, J. Olthuis** and **H. de Graaff**
Second edition, xiv + 496 pp, 6×9 in, 380 illus

A detailed explanation of the underlying principles of present-day television transmission and reception practice.

Dutch edition can be supplied.

Duru - AIDE-MEMOIRE DE LA TELEVISION (Television servicing)

by **P. Duru**

x + 159 pp, 5¾×8⅓ in, 133 illus, 1965

Editions in French and Spanish can be supplied.

Sjobbema * - AERIALS

TV and FM receiving aerials

by **D. J. W. Sjobbema**
viii + 110 pp, 5¾×8⅓ in, 98 illus, 1964

For many years the aerial was regarded as the poor relation of the radio receiver, but with the coming of V.H.F. transmissions for both television and radio broadcasts, and now U.H.F. for 625-line transmission, the aerial system has once again become of paramount importance if trouble-free reception is to be obtained. This is an intensely practical book, free from mathematics, written by one who is fully aware of the difficulties encountered by those whose job it is to install aerials.

CONTENTS: The energy transfer from emitter to receiver - the receiving aerial - the choice and installation of the aerial - connecting the aerial to the receiver - attenuators - several receivers connected to the same aerial

Editions in English, French, German and Dutch can be supplied.

Swaluw/v.d. Woerd - INTRODUCTION TO TV SERVICING

(for 625 and 525 line receivers)

by **H. L. Swaluw & J. v.d. Woerd**
Second edition, xi + 272 pp, 5¾×8⅓ in, 345 illus, 1963

Fully revised, with all circuit descriptions based on the most recent models of TV receivers.

CONTENTS: 1. Building up a picture from single lines. 2. The picture tube, construction, focusing and deflection. 3. Determining the frame frequency, interlaced scanning. 4. The video signal applied between grid and cathode of the picture tube, the synchronizing signal. 5. Attainable definition and bandwidth required, some test pattern signals. 6. The transient response of RC circuits. 7. The RF signal. 8. Description of the block schematic of a modern TV receiver. 9. Description of the circuit diagram. 10. Test instruments for service in the customer's home. 11. Test instruments for tuning. 12. Systematic fault-

finding in TV receivers. 13. The test pattern. 14. Diagnosis of picture faults with the aid of screen photographs.

Editions in German, Spanish, Italian and Arabic can be supplied.

Holm - COLOUR TELEVISION EXPLAINED

by **W. A. Holm**

Third edition, viii + 130 pp, $5\frac{3}{4} \times 8\frac{1}{2}$ in, 61 illus, 8 colour plates, 1968

Uses the same pictorial methods that made HOW TELEVISION WORKS so successful. It explains with many ingenious line and colour diagrams the fundamental features common to all the various systems.

CONTENTS: 1. Fundamental theory. 2. Colour television pick-up equipment. 3. Reproduction systems. 4. The transmission system. Appendix.

Editions in English, French, German, Spanish and Dutch can be supplied.

Hurth - TELEVISION EN COULEURS (Colour television)

Schémas de base des récepteurs N.T.S.C. et S.E.C.A.M.

by **R. Hurth**

viii + 130 pp, 6×9 in, 113 illus, 3 tipped-in sheets, 1966

Editions in French and Spanish can be supplied.

Hartwich - COLOUR TELEVISION SERVICING HANDBOOK

Volume I: Fundamental principles of colour television technique

by **W. Hartwich**

ix + 209 pp, 6×9 in, 164 illus, 14 col illus, 1966

The fundamental principles of colour television technique are explained. This volume deals with the three-colour theory and with the transmission technique from the recording camera up to the complete transmitter signal, and describes the restoring and the reproduction of the colour information in the receiver. Throughout the book it is assumed that the reader is already familiar with the monochrome television technique.

CONTENTS: 1. Colour and colour perception. 2. Matching of colour television and black and white television standards. 3. Luminance and chrominance signals. 4. Colour subcarrier. 5. Modulation technique of the colour subcarrier. 6. Complete transmitter signal. 7. Block diagram of a colour television receiver. 8. The colour television display tube. 9. The synchronous detector. 10. Matrix circuits. 11. Restoration and synchronisation of the colour subcarrier. 12. Colour-bar voltages for testing and ajdustment. Bibliography. Index.

Editions in English, French and German can be supplied.

Hartwich - EINFÜHRUNG IN DIE FARBFERNSEH-SERVICETECHNIK (Colour television servicing handbook)

Band II: Schaltungstechnik und Service-Einstellungen

by **W. Hartwich**

x + 282 pp, 6×9 in, 260 illus, 47 col illus, 2 fold-out diagrams

This second volume describes a complete modern colour television receiver with all adjustments and compensation techniques.

In preparation. To be published in 1967. German edition can be supplied.

For related titles, see also:

Boekhorst/Stolk - TELEVISION DEFLECTION SYSTEMS, page 8

Measuring

Beerens - MEASURING METHODS AND DEVICES IN ELECTRONICS

by **A. C. J. Beerens**

xiii + 174 pp, $5^3/_4 \times 8^1/_3$ in, 150 illus, 1966

This book deals with the general measurements which are daily necessary for the electronics technician and describes the measuring instruments commonly used. Measuring methods are compared with one another to familiarise the reader with the "why" as well as the "how".

CONTENTS: PART I - MEASURING INSTRUMENTS: 1. Instruments for measuring current and voltage. 2. The cathode ray oscilloscope with auxiliary equipment. 3. Signal generators. 4. Impedance measuring bridges. 5. Frequency meters. 6. Stabilised supply equipment.

PART II - MEASURING METHODS: 7. Measuring accuracy current, voltage, power and frequency. 8. Measurement of resistance, capacitance and self-inductance. 9. Measurements on passive networks. 10. Measurements on valves and transistors. 11. Measurements on active networks. 12. Some practical hints on carrying out electronic measurements.

PART III - SIMPLE THEORY OF ERRORS.

Editions in English, French, German and Dutch can be supplied.

Beerens/Kerkhofs - 101 EXPERIMENTS WITH THE CATHODE-RAY OSCILLOSCOPE

by **A. C. J. Beerens & A. W. N. Kerkhofs**

approx. 130 pp. $5\frac{3}{4} \times 8\frac{1}{2}$ in, 103 illus.

In preparation. To be published in 1968.

Dutch edition can be supplied.

Carter - AN INTRODUCTION TO THE CATHODE RAY OSCILLOSCOPE

by **H. Carter, A.M.I.E.E.**

Second enlarged edition, x + 121 pp, 5¾×8½ in, 99 illus, 3 folded circuits, 1960

A short clear account by one of our most readable exponents of electrical ideas demanding only elementary electrical knowledge and drawing examples from a wide range of applications.

CONTENTS: 1. Introduction. 2. The cathode ray tube. 3. The time base. 4. Amplifiers for vertical deflection and pick-ups for converting non-electrical phenomena into electrical magnitudes. 5. Power supply for cathode ray oscilloscopes. 6. Practical applications of the oscilloscope. 7. Standard cathode ray tubes for oscillography. 8. Some complete oscilloscope circuits.

Third edition in preparation. To be published in 1968. Editions in Spanish and Dutch can be supplied.

Czech - OSCILLOSCOPE MEASURING TECHNIQUE

by **J. Czech**

xviii + 620 pp, 6×9 in, 659 illus, 1965

Conveys to the reader the results of experience over two decades with a wide range of practical problems of the oscilloscope measuring technique. Over 600 original oscillograms give a remarkable impression of its performances. Many valuable practical limits, extensive references and a good index are useful features of the book.

CONTENTS:
Part 1 - The cathode ray oscilloscope
Part 2 - General measuring technique
Part 3 - Practical examples
Part 4 - Photographic recording and large picture projection of oscillograms.

Editions in English and Spanish can be supplied.

Dokter/Steinhauer - DIGITALE ELEKTRONIK IN DER MESSTECHNIK UND DATENVERARBEITUNG (Digital electronics in measuring technique and data handling), Vol. I

by **F. Dokter & J. Steinhauer**

Approx. 300 pp, 6×9 in, 224 illus

German edition in preparation. To be published in 1969.

Fricke - DIGITAL PROCEDURES IN MEASURING TECHNIQUE

by **H. W. Fricke**

approx. 160 pp, 5¾×8½ in, 101 illus, 18 plates

An introduction to the digital procedures, a subject which is of current interest. Its clear description makes it understandable for the layman.

In preparation. To be published in 1969

German edition can be supplied.

Fricke - DIE FOTOGRAFISCHE REGISTRIERUNG VON ELEKTRONENSTRAHL-OSZILLOGRAMMEN (Photographic recording of cathode ray oscillograms)

by **H. W. Fricke**

viii + 108 pp, 5¾×8½ in, 74 illus, 8 pp photos, 1964

Editions in German and French can be supplied.

Koch/Boiten - STRAIN GAUGES

Theory and application

by **J. J. Koch, R. G. Boiten, A. L. Biermasz, G. P. Roszbach** and **G. W. van Santen**

Out of print.

See Potma - STRAIN GAUGES MEASURING TECHNIQUE

Nelting/Thiele - ELEKTRONISCHES MESSEN NICHTELEKTRISCHER GRÖSSEN (Elektronic measuring of non-electrical phenomena)

by **H. Nelting & G. Thiele**

xi + 360 pp, 6×9 in, 340 illus, 1966

Each chapter of this valuable handbook treats, starting from the theoretical principles, practical problems of the measuring technique.

German edition can be supplied.

Potma* - STRAIN GAUGES

Theory and application

by **T. G. Potma**

viii + 139 pp, 5¾×8½ in, 135 illus, 8 plates 1967

This book will be a help for those who have much to do with the measurement of strain and stress, without having sufficient knowledge in this field.

CONTENTS: 1. Introduction. 2. Types, designs and manufacturing methods. 3. Characteristic quantities. 4. Measuring methods and equipment. 5. Compensation methods. 6. Basic strain gauge techniques. 7. Applications of strain gauges. 8. Material data.

Editions in English and Dutch can be supplied.

Schultz - MEASURING AND TESTING WITH SQUARE WAVE SIGNALS

by **W. Schultz**
xii + 197 pp, 6×9 in, 168 illus, 4 pp with oscillograms, 2 tables, 1966

Test methods designed to furnish as much information as possible concerning the characteristic properties of a testpiece in the shortest possible time are nowadays preferred. In this book the author brings together as much information as possible on using square wave signals. Tables and master patterns have been used to supplement the essential mathematical formulae, almost all of which are traced back systematically and fully interpreted.

CONTENTS: 1. The square-wave signal. 2. On and off switching transitions in a simple network. 3. Testing in the audio-frequency range. 4. Testing with predistorted square-wave signals. 5. Testing and balancing in the r.f. range. 6. Measuring and testing components and subassemblies. 7. Outputs of certain square-wave generators. Appendix 1: Tables of the e-function. Index.

Editions in English and German can be supplied.

For related titles see also:

Klein/Zaalberg van Zelst - PRECISION ELECTRONICS page 5

Van Santen - ELECTRONIC WEIGHING AND PROCESS CONTROL, page 21

Industrial electronics and electricity

Kretzmann - INDUSTRIAL ELECTRONICS HANDBOOK

by **R. Kretzmann**
Fourth edition, 320 pp, 6×9 in, 338 illus, 1959

'Will be invaluable to technicians who are engaged in supervision or maintenance of industrial equipment and to engineers in the industrial field who wish to acquaint themselves with the possibilities of electronic control'. —

Electrical Journal

CONTENTS: PART I. THE TUBES AND THEIR BASIC CIRCUITS. 1. Amplifying and transmitting tubes. 2. Rectifying tubes. 3. Thyratrons. 4. Senditrons. 5. Ignitrons and excitrons. 6. Voltage stabilizing tubes. 7. Photocells. 8. Trigger tubes. 9. Cathode-ray tubes. PART II. ELECTRONIC DEVICES FOR INDUSTRIAL PURPOSES. 10. Electronic relays. 11. Electronic counting circuits. 12. Electronic timers. 13. Industrial rectifier circuits. 14. Electronic dimming of lamps. 15. Speed and temperature control. 16. Electronic control of resistance welding. 17. Electronic motor control. 18. High-frequency inductive heating of metals. 19. High-frequency capacitive heating of dielectric materials. Conclusion. Appendix.

Edition in English, French, Spanish and Dutch can be supplied.

Kretzmann - INDUSTRIAL ELECTRONICS CIRCUITS

by **R. Kretzmann**
viii + 192 pp, 6×9 in, 206 illus, 1963

A companion to the author's much appreciated Handbook, in which many more circuits are described in detail with fine circuit diagrams and photographs.

CONTENTS: 1. Photoelectric devices. 2. Counting tubes. 3. Stabilizing circuits. 4. Contact and control devices. 5. Oscillator and amplifier circuits. 6. Full-wave circuits.

Editions in French and Spanish can be supplied.

MICROWAVES

Proceedings of the 4th International Congress on Microwave Tubes

xvi + 813 pp, 11½×8⅓ in, 1266 illus, 1963

Out of print.

Püschner - HEATING WITH MICROWAVES

Fundamentals, components, circuit technique

by **H. Püschner**
xviii + 319 pp, 6×9 in, 230 illus., 1966

A book for development engineers as well as for students. Besides information on the present-day advanced stage of technique the book gives hints and suggestions for new possibilities in this branch of r.f. heating.

CONTENTS: 1. Introductory remarks. 2. The continuous-wave magnetron as a microwave generator. 3. The operational behaviour of the continuous-wave magnetron. 4. Operating conditions of the continuous-wave magnetron. 5. Power supply equipment and cooling systems for continuous-wave magnetrons. 6. Behaviour of a dielectric in the electrical alternating field. 7. Analysis of a microwave system. 8. Dielectric heating in the progressive microwave field. 9. Heating in the standing microwave field. 10. Triode generators for dielectric heating in the lower microwave range. 11. Body tissue in microwave range. 12. Microwave measuring technique. 13. Low frequency measuring technique.

Editions in English and German can be supplied.

Simard - LES GRADATEURS ELECTRONIQUES (Electronic control of lighting)

by **P. Simard**

viii + 104 pp, 6×9 in, 110 illus, 6 photos, 1966

Editions in French and Spanish can be supplied.

Sobotka - INDUSTRIAL H.F. HEAT GENERATORS

by **H. Sobotka**

x + 91 pp, 6×9 in, 43 illus, 1963

A practical explanation of the principle of high frequency heating equipment, and of its use in industrial processes.

CONTENTS: 1. The two types of the HF heating. 2. Estimation of the thermal efficiency required. 3. Production of heat in the work. 4. Choice of working frequency. 5. The HF heating apparatus. 6. Conditions for transmitter tubes in industrial generators. 7. Pulse operation. 8. Frequency stability and spurious emission. 9. Useful hints on durability and factors governing working reliability. 10. Power supply.

Editions in English, French, German and Spanish can be supplied.

Van der Ploeg - INDUSTRIAL ELECTRONICS APPARATUS

Steps in design and maintenance

by **P. van der Ploeg**

110 pp, 5¾×8⅓ in, 22 illus, 33 photos, 1960

This simple book relates design details to efficient working and maintenance, in a way that interests technicians.

CONTENTS: 1. The function of the equipment. 2. The laboratory test. 3. The prototype. 4. Production. 5. Installing the equipment. 6. The purpose of maintenance. 7. Maintenance. 8. Fault finding. Supplement. Electronic tube data.

Editions in English, French, German and Dutch can be supplied.

Van Santen - ELECTRONIC WEIGHING AND PROCESS CONTROL

by **G. W. van Santen**

xii + 273 pp, 6×9 in, 140 illus, 51 photos, 5 tipped-in sheets, 1966

Attention is given to the theoretical principles and practical design of electronic weighing equipment, together with the methods whereby this equipment can be used to construct simple or complex weighing installations offering an almost unlimited scope for automation.

CONTENTS: 1. Weighing. 2. The strain gauge. 3. Basic construction of an electronic weighing installation. 4. Loadcells. 5. The measuring circuit of the weight indicator. 6. Auxiliary equipment. 7. The "blind" weighing relay. 8. Basic equipment in some of its practical forms. 9. Some standard types of auxiliary equipment. 10. Sources of error in an electronic weighing installation. 11. Cornertest errors. 12. Mechanical sources of error and methods of counteracting. 13. Instrumentation of a discontinuous batching process. 14. Instrumentation for a semi-continuous batching process. 15. Weighing on conveyor belts. 16. Controlling a flow of material. 17. Weighing material in hoisting gear. 18. A comparison of the respective weighing times with electronic, and with conventional, weighing methods. 19. On the industrial applications of electronic weighing.

Editions in English, German and Dutch can be supplied.

For related titles, see also:

Carter/Donker - PHOTO ELECTRIC DEVICES, page 9

Hinkel - MAGNETRONS, page 8

Kok: ELECTRICAL BREAKDOWN OF INSULATING LIQUIDS, page 1

Computers and automation

Adler - ZO DENKEN MACHINES (Thinking machines)

Een introductie tot de logica, de algebra van Boole en de techniek van de rekenmachine

by **I. Adler**

viii + 132 pp, 5¾×8⅓ in, 46 illus, 1964

Dutch edition can be supplied.

De Fremery - COMMUNICATIE IN INFORMATIEVERWERKENDE SYSTEMEN (Communication in data handling systems)

by **F. de Fremery**

xi + 161 pp, 6×9 in, 69 illus, 1964

Dutch edition can be supplied.

Haas - FUNDAMENTALS AND COMPONENTS OF ELECTRONIC DIGITAL COMPUTERS

by **G. Haas**

x + 247 pp, 6×9 in, 179 illus, 1963

A comprehensive technical introduction to the subject which describes the components and circuits of digital computers and relates them to the tasks they have to perform.

CONTENTS: 1. Introduction. 2. The fundamentals of electronic digital computers. 3. Components for digital computers. 4. Examples of circuits.

Editions in English, French, German and Spanish can be supplied.

Descriptive leaflets can be supplied on request

Schuh - PRINCIPLES OF AUTOMATION

What a robot can and cannot do

by **J. F. Schuh**

xii + 380 pp, 6×9 in, 145 illus, 2 photos, 1965

.... a sound and remarkably readable introduction to the subject of automata. .... The translation into English places it high among surprisingly few other books covering this field in the English language'.— *Electronic Engineering*

CONTENTS: 1. Introduction. 2. Elements of logic. 3. Codes and languages. 4. Component parts of logical networks. 5. Mechanisms in general. Appendix A: Harmonic functions and their complex representation. Appendix B: Stochastic processes. Appendix C: Fourier integrals and series.

Editions in English, German and Dutch can be supplied.

For related titles see also:

Apples/Geels - HANDHOOK OF RELAY SWITCHING TECHNIQUE, page 10

II. LIGHT

Bergmans - SEEING COLOURS

by **J. Bergmans**

x + 80 pp, 5¾×8½ in, 23 illus, 3 col pl, 1960

A clear introduction to the subject of colour vision and the principles involved.

CONTENTS: 1. What is colour? 2. The physical properties of light. 3. The sense of vision. 4. Colour-triangles. 5. The colour-triangle resulting from the X-Y-Z-system of the I.C.I. 6. The white point, properties of the spectral curve and complementary light-types. 7. Colour-temperature of light-sources. 8. Dominating wavelength and degree of saturation. 9 Colour rendition. 10. Colour rendition of the warm-white de luxe lamp (colour 32). 11. Demonstration of colour rendition.

Editions in English, French, German, Spanish and Dutch can be supplied.

De Boer - PUBLIC LIGHTING

Edited by **J. B. de Boer**, Professor at the Technical University, Eindhoven.

xii + 694 pp, 6×9 in, 779 illus, 1967

For safe and regularly flowing traffic now and in the future will depend largely on the good lighting of all traffic routes. The authors have compiled in a very thorough way the newest information on this entire problem.

CONTENTS: 1. Introduction. 2. Visual perception in road traffic and the field of vision of the motorist. 3. Theoretical tasks of road-lighting design. 4. Tunnel lighting. 5. Lighting codes. 6. Lamps and lanterns. 7. Practical lighting design. 8. Measurements. 9. Lighting of motorways and traffic junctions. 10. Floodlighting of buildings and monuments. 11. Description of existing installations.

English edition can be supplied.

Boud - ECLAIRAGE DANS LA MAISON (Lighting for life)

by **J. Boud**

viii + 221 pp, 6×9 in, 63 illus, 20 pp photos, 1964

French edition can be supplied.

Bouma - PHYSICAL ASPECTS OF COLOUR

by **P. J. Bouma**

312 pp, 6×9 in, 113 illus, 1947

'An excellent account of the concepts, units and methods used in the measurement and specification of colours written with a combination of simplicity and accuracy„ which could have emerged only from a mass of detailed and well digested knowledge'. *The Lancet*

CONTENTS: 1. Introduction. 2. Brightness. 3. The colour triangle. 4. Colour space in its simplest form. 5. The C.I.E. coordinate system XYZ. 6. Colour calculations in the C.I.E. system. 7. Some special light sources and colours. 8. Objective colorimetry. 9. Colorimetry. Subjective methods. 10. Defective colour vision. 11. The historical development of colour science. 12. Colour discrimination. 13. A closer study of the character of colour sensation. 14. Practical application.

Second English edition in preparation. To be published in 1968.

Dutch edition can be supplied.

Canham - ARTIFICIAL LIGHT IN HORTICULTURE

by **A. E. Canham**

vii + 210 pp, 6×9 in, 53 illus, 35 photos, 1966

This book gives a clear, simple treatment of the technical and commercial results which can be obtained by growing plants with the aid of artificial light.

Full details are given of the ways in which artificial light can be used for growing plants that are principally intended for food, e.g. tomatoes, and those grown for their flowers, e.g. chrysanthemums.

This book is not only useful for those who are connected with commercial horticulture but also offers a wealth of information for research workers, and for lighting contractors concerned with the design of efficient installations.

CONTENTS: Introduction: Light as an environmental factor. 1. Light and its measurement. 2. Light and plant growth. 3. Lamps. 4. Promoting long-day effects. 5. Supplementary light. 6. Growing plants without daylight.

English edition can be supplied.

Elenbaas - FLUORESCENT LAMPS AND LIGHTING

Edited by **W. Elenbaas**
Second edition, x + 346 pp, 6×9 in, 280 illus, a col triangle, 1963

Recent advances in fluorescent lamps design and in lighting techniques are fully discussed. Besides explaining from first principles the construction and mode of operation of fluorescent lamps, the book also contains a wealth of up-to-date information on how to employ them to the best advantage. Examples are quoted of outstanding applications drawn from lighting practice throughout the world.

CONTENTS: 1. Luminescence, fluorescence and phosphorescence. Luminescent substances. 3. Colour of the light emitted by fluorescent lamps; colour rendition. 4. Gaseous discharges. 5. Lamp construction. 6. Factors affecting the efficiency. 7. Stabilization of the discharge. 8. Lamp types and circuits. 9. Ballasts for A.C. operation. 10. Fluorescent lamp fittings. 11. Progress in lighting. 12. Application of fluorescent lamps.

Third edition in preparation.
Editions in French and German can be supplied.

Elenbaas - HIGH PRESSURE MERCURY VAPOUR LAMPS AND THEIR APPLICATIONS

Edited by **W. Elenbaas**
xi + 304 pp, 6×9 in, 213 illus, and 24 tables, 1965

The whole field of high pressure mercury vapour lamps and their latest developments and applications are treated by specialists of the Philips Light Group Laboratories, where so many contributions have been made to the development and perfectioning of these light sources. An appendix gives details of the iodide discharge, a recent development of great importance.
The book is clearly written and is intended for all those who are privately or professionally interested in the applications and the scientific background of the high pressure mercury vapour discharge.

CONTENTS: 1. The high pressure mercury vapour discharge. 2. Fluorescent materials. 3. Stabilization. 4.High pressure mercury vapour lamps for general lighting purposes. 5. Lighting with high pressure mercury vapour lamps. 6. Construction and application of high pressure mercury vapour lamps for the ultraviolet region. 7. High pressure mercury vapour lamps having a high luminance. Appendix. Iodide discharge lamps.

Editions in English and German can be supplied.

Favié et al. - LIGHTING

by **J. W. Favié, C. P. Damen, G. Hietbrink, N. J. Quaedflieg**
viii + 186 pp, 6×9 in, 90 illus, 1962

Attention is paid to the visual perception and its conditions in order to obtain a good illumination. Directions are inserted for those who have to make calculations for illumination projects and instructional examples are given, informative tables are also found in the book. For these calculations many photos illustrate in what way modern light-sources and mountings have been applicated.

CONTENTS: 1. Visible radiation and light. 2. Concepts and units. 3. Reflection, absorption and transmission. 4. Light sources. 5. Visual perception. 6. Conditions for good illumination. 7. Calculating a lighting project. 8. Tables for lighting. 9. Examples of installations.

Editions in English, French, German, Spanish and Dutch can be supplied.

Funke/Oranje - GAS DISCHARGE LAMPS

by **J. Funke** and **P. J. Oranje**
286 pp, 6×9 in, 171 illus, 1951
Out of print.

Kalff - THE CREATIVE LIGHT

by **L. C. Kalff**
Approx. 100 pp, 11½×11½ in, 20 illus and 72 photos
English edition in preparation. To be published in 1969

Keitz - LIGHT CALCULATIONS AND MEASUREMENTS

by **H. A. E. Keitz**
Second edition, xvi + 413 pp, 6×9 in, 238 illus, 1968

The new approach of this book, so different from the usual academic text, will appeal especially to the lighting engineer who tackles the subject from a technological view-point, without the background of advanced mathematics and the classical theories of light. Moreover, the wealth of detail on practical methods of light measurement will make this book of value to all interested in lighting problems, whether as designer, engineer or physicist.

CONTENTS: 1. Introduction. 2. Solid angle. 3. Luminous flux, luminous intensity, quantity of light. 4. Light distribution, Rousseau and zonal luminous flux diagrams. 5. Methods of representing light distribution. 6. Illumination. 7. Illumination calculations and diagrams. 8. Luminance and luminous emittance. 9. Non-point sources. 10. Reflection, absorption, transmission. 11. Properties of optical systems. 12. The photometric measuring-units system. 13. General considerations. 14. Visual photometry and photometers. 15. Physical photometers and photometry. 16. Measurement of luminous intensity. 17. Measurement of luminous flux, quantity of light, and luminous emittance. 18. Measurement of illumination. 19. Meas-

urement of luminance. 20. Measurement of reflection, transmission and absorption.

Second edition in preparation. To be published in 1967. German edition can be supplied.

Rieck/Verbeek - ARTIFICIAL LIGHT AND PHOTOGRAPHY

by **G. D. Rieck** and **L. H. Verbeek**
360 pp, 7×11 in, 180 illus, 52 pp photos, 4 colour photographs, 1952

Out of print.

French edition can be supplied.

Schreuder - THE LIGHTING OF VEHICULAR TRAFFIC TUNNELS

by **D. A. Schreuder**
Second edition, viii + 120 pp, 6×9 in, 57 illus, 8 pp photos, 1965

A detailed discussion of the problems of tunnel lighting in which the author describes careful experiments from which he derives the requirements in zones near the tunnel entrance with respect to length and luminance levels and in the tunnel interior with respect to the luminance.

CONTENTS: 1. Introduction. 2. Aspects of tunnel lighting. 3. The lighting of long tunnels. 4. The lighting of short tunnels. 5. Experiments and measurements. 6. Summary. 7. Bibliography.

English edition can be supplied.

Veen/Meijer - LIGHT AND PLANT GROWTH

by **R. van der Veen** and **G. Meijer**
164 pages, 6×9 in, 92 illus, 1959

Out of print.

Zwikker - FLUORESCENT LIGHTING

by **W. Elenbaas, J. Funke, Th. Hehenkamp, L. C. Kalff, A. A. Kruithof, J. L. Ouweltjes, L. M. C. Touw, D. Vermeulen, R. van der Veen, C. Zwikker**
262 pp, 6×9 in, 192 illus, 1952.

Out of print.

See Elenbaas - FLUORESCENT LAMPS AND LIGHTING

Zijl - ILLUMINATING ENGINEERING COURSE

by **H. Zijl**
viii + 242 pp, 5¾×8½ in, 128 illus, 1956

Covers the theoretical principles of lighting, clearly and with a minimum of mathematics, relating them to the empirically based rules which govern visual perception and mental reaction. The book will be of value to illuminating engineers, architects, works or production managers, and many others who wish to understand and solve everyday lighting problems. 170 graded questions and answers are included.

CONTENTS: 1. Electromagnetic radiation. 2. Light. 3. The system of measurements used in illuminating engineering. 4. The inverse square law and the cosine law. 5. Diagrams. 6. Reflection, transmission and absorption. 7. The measurement of light. 8. The visual sense. 9. Sensory perception. 10. Illumination and the task. 11. The quality of illumination. 12. The colour of artificial light. 13. Lamps. 14. Electric gear for gas-discharge lamps. 15. Gas-discharge lighting installations. 16. Requirements to be imposed on a lighting system. 17. Seeing. 18. General lighting systems. 19. The coefficient of utilization. 20. Irregularities in general lighting. 21. Local lighting. 22. Lighting fittings. 23. Planning and installation.

Editions in English and Spanish can be supplied.

Zijl - LARGE-SIZE PERFECT DIFFUSORS

by **H. Zijl**
Second edition, x + 196 pp, 6×9 in, 120 illus, 1960

A survey of the problems of light distribution for diffuse emitters of both finite and infinite dimensions. The mathematical formulae recommended for practical use are clearly set out, the author showing how they are derived.

CONTENTS: 1. Simple diffuse light sources. 2. The law of reciprocity. 3. The significance of the law of reciprocity. 4. Preliminary survey. 5. The six basic formulae for combinations of parallel surfaces. 6. The twelve basic formulae in respect of combinations of planes which are perpendicular to each other. 7. The isotropic point-source. 8. The twelve basic formulae relating to cylindrical emitters. 9. The P-chart. 10. Method of employing the P-chart. 11. Special mathematical considerations. 12. Some further possibilities. 13. The luminous-flux field. 14. Daylight. 15. The inverse square law. 16. Conclusion.

English edition can be supplied.

For related titles see also:

La Toison - INFRARED AND ITS THERMAL APPLICATIONS, page 2

III. SOUND

Franssen - STEREOPHONY

by **N. V. Franssen**

viii + 86 pp, 6×9 in, 64 illus, 1964

Explains the principles of stereophony and concepts and effects such as directional hearing, mono and stereophonic hearing, monaural and binaural hearing — all related in principle but different in their psychological aspects.

CONTENTS: 1. Introduction. 2. The faculty of auditory perspective. 3. Stereophony. 4. Room acoustics. Appendix I: The mechanism of auditory perspective. Appendix II: The perception of tone and timbre.

Editions in English, French, German, Spanish and Dutch can be supplied.

Nijsen* - THE TAPE RECORDER

A guide to magnetic recording for the non-technical amateur

by **C. G. Nijsen**

Second edition, x + 142 pp, 5¾×8½ in, 57 illus, 30 pp photos, 1 fold-out plate, 1968

A book specially written for that rapidly growing band of enthusiasts for whom a tape-recorder is as indispensable as a radio, a record-player or a camera. It shows how the best possible results can be obtained from a recorder, whether it is used for pleasure or business or educational purposes — at home or in a school.

CONTENTS: What is sound? - sound recording and reproduction - the tape recorder - acoustics - stereophony - choosing a recorder - advice on making recordings - applications of the tape recorder from A to Z - the recorder in genreal education and the study of musictape clubs and sound recording as a hobby - dictation machines - magnetic recording conquers the world.

Editions in English, French, German and Dutch can be supplied.

Slot * - AUDIO QUALITY

Requirements for high quality audio equipment

by **G. Slot**

viii + 156 pp, 5¾×8½ in, 61 illus, 26 tables, 1964

This book deals with the problem of obtaining the quality of sound reproduction that will give the maximum satisfaction to those listening to it — or probably more exactly to the one owning the equipment, because no two people react in exactly the same way. The author considers the whole problem objectively — what is meant by "high fidelity", is absolute fidelity possible? Altogether a book to delight the "Hi-fi" enthusiast and those who want good music at its best.

CONTENTS: The problem - the technical specification - power requirements - non-linear distortion - frequency response - pitch deviations - background noises - stereophony - ambiophony - experimental evidence - classification - the equipment.

Editions in English, French, German and Dutch can be supplied.

Slot - FROM MICROPHONE TO EAR

Modern sound-recording and reproduction technique

by **G. Slot**

Fourth edition, ix + 260 pp, 5¾×8½ in, 110 illus, 31 photos, 1965

A book for all who desire to understand the technical aspects of modern sound recording. Included are simple and inexpensive test methods for evaluating the quality of an installation, and a chapter on the problem of room acoustics.

CONTENTS: 1. From tinfoil to stereophony. 2. From Hertz to gramophone. 3. From sound to record. 4. Pick-ups: operating principles - characteristics. 5. The needle and record. 6. The care of needle and record. 7. Record players and changers. 8. Amplifiers. 9. Loudspeakers: operation and characteristics - acoustic problems and solutions. 10. Stereophony. 11. High-Fidelity - evaluation and testing. 12. Magnetic tape recordings. 13. Technology as the servant of music.

Editions in English, French, Spanish, Italian, Swedish and Dutch can be supplied.

Snel - MAGNETIC SOUND RECORDING

Theory and practice of recording and reproduction

by **D. A. Snel**

Third edition, xii + 217 pp, 6×9 in, 164 illus, 37 photos, 1963

Special attention is paid to the mechanical and electrical design of simple recorders. Although magnetic tape, magnet heads and transport mechanisms will doubtless be progressively improved, their fundamentals are not likely to change. This book is a reference book, both for the expert and the layman. The latest stereophonic developments are included.

CONTENTS: 1. Introduction. 2. Sound defined. 3. Recorders for use in the home. 4. Magnetism and electricity. 5. Introduction to the process of magnetisation. 6. The process of magnetisation. 7. Recorder drives. 8. Tape and heads. 9. Magnetic heads. 10. Magnetic tape. 11. Amplifiers. 12. Loudspeakers. 13. Microphones. 14. Practical recording. 15. Practical hints on playback. 16. Dictating machines. 17. Stereophony. 18. Magnetic sound recording as applied to sub-standard films. 19. Faultfinding. 20.

Professional equipment. 21. Possible applications. 22. General education and the study of music. 23. Sundries.

Editions in English, French, German, Spanish, Swedish and Dutch can be supplied.

Van der Wal * - LOUDSPEAKERS AND LOUDSPEAKER CABINETS

by **P. W. van der Wal**

viii + 110 pp, $5\frac{3}{4}\times8\frac{1}{3}$ in, 156 illus, 3 photos, 1966

Besides providing particulars of numerous different speaker boxes, this book is a source of information on various matters which, although apparently incidental, must nevertheless be given due consideration if the best results are to be obtained. To enable the "do-it-yourself" enthusiast to deal with certain problems which may arise during the construction of the boxes, a chapter of practical hints is also included.

CONTENTS: 1. The loudspeaker. 2. Choosing a loudspeaker. 3. A few fundamentals. 4. Distortion. 5. Stereophonic and monaural loudspeaker installations. 6. Indoor acoustic and sound-reproduction in the open. 7. The principles of baffles and loudspeakers. 8. Building loudspeaker boxes oneself. 9. Drawings of cabinets.

Editions in English and Dutch can be supplied.

Vastenhoud * - SHORT WAVE LISTENING

by **J. Vastenhoud**

vii + 120 pp, $5\frac{3}{4}\times8\frac{1}{3}$ in, 33 illus, 4 photos, 1966

The book, which deals with the possibilities and problems of short-wave reception on the level of popular science will enable the reader to discover a whole new world of his own.

CONTENTS: 1. Short waves. 2. The principles of short wave transmission. 3. Practical short wave transmitting. 4. Short wave prediction. 5. Sources of interference. 6. The aerial. 7. The correct choice of receiver. 8. Communications receivers. 9. Do any regulations exist governing the use of frequencies in the short wave band. 10. DX-ing in practice. 11. DX-ing with a tape recorder. 12. DX-ing using a frequency meter.

Editions in English, French and Dutch can be supplied.

Vergnet - LES MAGNETOPHONES MODERNES (Tape recorders)

by **G. Vergnet**

x + 178 pp, $5\frac{3}{4}\times8\frac{1}{3}$ in, 162 illus, 1964

French edition can be supplied.

IV. MEDICAL PHYSICS

Boutkan - VECTORCARDIOGRAPHY

Physical bases and clinical practice

by **J. Boutkan, M. D.**

viii + 157 pp, 6×9 in, 155 illus, 4 plates, 1965

The author, a medical specialist with many years of practical teaching experience, offers in this monograph a course in vectorcardiography, a subject which is currently arousing keen international interest.

The first part of the work deals with the fundamentals of vectorcardiography. There is also a section on normal electro-cardiography, and a discussion of the relationship between vector- and electro-cardiography.

The second part is mainly concerned with clinical practice. Both the medical man and the applied physicist will be glad to have such a clear and timely manual.

CONTENTS: 1. Introduction. 2. Electrophysiology. 3. The vectorial representation of the heart activity. 4. Conductivity through a volume conductor. 5. Einthoven's triangle and the ECG leads. 6. Physical principles of vector-cardiography. 7. The normal VCG and ECG. 8. Bundle branch block. 9. Hypertrophy. 10. Chronic cor pulmonale. 11. Coronary artery disease. 12. The Wolff-Parkinson-White syndromen. 13. The effect of digitalis. 14. The VCG in cases of atrial septal defect. 15. VCG's for interpretation.

English edition can be supplied.

Boutkan - ABC OF THE ECG

Principles of clinical electrocardiography

by **J. Boutkan**, M.D.

viii + 152 pp, 7×8 in, 200 illus

CONTENTS: 1. Introduction. 2. Vectorial representation of the excitation wave front. 3. The electrocardiographic leads. 4. Normal electrocardiographic configuration values. 5. Bundle branche blocks. 6. Hypertrophy. 7. Coronary artery disease. 8. Wolff-Parkinson white syndrome. 9. Effect of drugs and electrolyte in balance. 10. Arrhythmias. 11. Miscellaneous and combined abnormal electrocardiographic patterns for interpretation.

In preparation. To be published in 1968.

Burger - HEART AND VECTOR

Physical basis of electrocardiography

by **H. C. Burger**, edited by **H. W. Julius** Jr.

xiii + 142 pp, 6×9 in, 78 illus, 1968

CONTENTS: 1. Introduction. 2. Use of instruments in electrocardiography. 3. The placing of the electrodes and the ECG. 4. Einthoven's triangle. 5. The electric dipole. 6. The relationship between heartvector and leads. The vectorcardiograph. 7. Geometrical representation. 8. Application of the geometric representation. 9. Testing the dipole approximation. 10. The total dipole and corrected systems. 11. Subjective and objective comparison of vectorcardiography. Compromise in vectorcardiography. 12. The polar vector (P). 13. The ventricular gradient (G). 14. The multipole effect. 15. The origin of the electrical activity of the heart. 16. Clinical applications of vectorcardiography.

English edition in preparation. To be published in 1968.

Hepple - X-RAYS IN DENTAL PRACTICE

by **G. H. Hepple**

vii + 120 pp, 5½×8¾ in, 162 illus.

In this publication, the dental practitioner will find much of absorbing and technical interest, presenting as it does in a concise manner, the development of the hot-cathode X-ray tube, the high-tension transformer, the X-ray tube unit and complete apparatus.

CONTENTS: I. Dental X-ray apparatus. II. Dental radiography-intraoral. III. Dental radiography-extraoral. IV. The dark room. V. Essential accessories.

Editions in English, French and Spanish can be supplied.

Lafon - THE PHONETIC TEST AND THE MEASUREMENT OF HEARING

by **Jean-Claude Lafon**

xii + 237 pp, 6×9 in, 28 illus, 1966

This is a work in two parts, the first concerned with hearing sounds and words and the second with the phonetic test and the identification of speech. The author clarifies the difficulties involved in measuring hearing, especially the spoken word, and critically classifies the audiometric methods actually used.

CONTENTS: PART I - HEARING SOUNDS AND SPEECH. 1. Hearing, reception and identification. 2. The receptor and the phoneme. 3. The psycho-physiology of hearing. 4. Hearing and language. 5. Information and hearing. 6. The logic of the measurement of hearing. PART II - THE PHONETIC TEST AND THE IDENTIFICATION OF SPEECH. 7. Principles of the test. 8 Methods of measurement. 9. The conduct and interpretation of the test. 10. The phonetic test and the cochlea. 11. The phonetic test and identification. 12. The phonetic test and language.

Editions in English and French can be supplied.

Lauge-Hansen - THE DEVELOPMENT AND THE EMBRYONIC ANATOMY OF THE HUMAN GASTRO-INTESTINAL TRACT

A new basis for the study of anomalies of the gastro-intestinal tract

by **N. Lauge-Hansen**

viii + 86 pp, 6×9 in, 176 illus. 1960

Editions in English and Spanish can be supplied.

Reinsma - DOSEMETERS FOR X-RAY DIAGNOSIS

by **K. Reinsma**

viii + 91 pp, 6×9 in, 36 illus, 1962

Theoretical and practical details of apparatus used in measuring radiation energy absorbed by patients during medical X-ray examinations.

CONTENTS: 1. Theoretical background. 2. Design and construction of ionization chambers. 3. Design and construction of the measuring circuits. 4. Calibration of dosemeters. 5. Measurements of irradiation- and integral doses in the St. Annadal Hospital and in the A.M.I. Institute, both situated at Maastricht (Netherlands). 6. Measurements of integral doses in the St. Radboud Hospital, Nijmegen, 7. Conclusions.

Editions in English, Spanish and Dutch can be supplied.

Schmidt-Voigt - AUDIO-TEXT-BOOKS OF MEDICINE

by **J. Schmidt Voigt**

CARDIAC ARRHYTHMIAS

A 45 r.p.m. E.P. record of 21 auscultation examples, accompanied by a 29-page explanatory booklet containing 21 illus, 1964

Disturbances to cardiac mechanism are encountered almost daily, in general practice as well as in hospital wards. Adequate diagnostic skill in this field, remarkably enough, is not always evident among GPs.

This small work enables one to learn to associate the visual representations of phonocardiographic traces with the acoustical impressions obtained during auscultation. The experience that can be acquired in this way does a great deal to facilitate the recognition of arrhythmias by auscultation alone. Auscultation of the heart, which hitherto has had a largely approximate and intuitive character, thus becomes an analytical method of differential diagnosis.

HEART SOUNDS

A 45 r.p.m. E.P. record of 30 auscultation examples, accompanied by a 26-page explanatory booklet containing 31 illus, 1964

In the past, little attention has been paid to this class of sounds at medical schools, owing to the inadequacy of means for recognizing and distinguishing them. Correct understanding of the subject has now been rendered possibly by exact phonocardiographic analysis of normal heart sounds and pathological changes therein. This new knowledge has enormously increased the usefulness of ordinary auscultation. The sounds dealt with here are, firstly, normal heart sounds and the peculiarities characteristic of different ages; secondly, the extra sounds which, together with normal ones, constitute gallop rhythms; and finally, the different kinds of variation in the intensity of heart sounds.

CARDIAC MURMERS

A 45 r.p.m. E.P. record of 21 auscultation examples, accompanied by a 16-page explanatory booklet containing 21 illus, 1964

Traditionally, auscultation has been an intuitive technique producing an overall impression; the basis of this improved method is the transformation of the intuitive approach into an analytical one. By associating what is heard with a visual display — the trace of the sound in question — an endeavour can be made to recognize symptoms and assess their severity and prognostic significance right from the auscultation stage. The ability to do this must become a part of everyday diagnostic routine in general practice. Experience is not the only road to the acquision of this shill; there are easier ways of gaining access to an area of knowledge that is not open to all. Here the didactic approach is aided by the simultaneous demonstration of the heart sound and its visualised trace.

Three volumes in free slipcase

Editions in English and Dutch can be supplied.

Van der Plaats - MEDICAL X-RAY TECHNIQUE

Principles and practice

by **G. J. van der Plaats**, M.D.

Second edition, 496 pp, 6×9 in, 206 illus, 16 pp photos, 1964

A comprehensive reference book for medical men and the physicists and engineers who are their partners in this field. An excellent textbook for the training of radiographers.

CONTENTS: 1. Origin of X-rays, structure and operation of the X-ray tube 2. X-ray tubes. 3. Properties of X-rays. 4. Methods of image formation and laws of projection. 5. Perceptibility of detail in the X-ray image. 6. Definition (sharpness). 7. The contrast. 8. Qualities of fluoroscopic screens radiographic films and intensifying screens. 9. The processing room and processing technique. 10. [illegible]ors, relating to the exposure. 11. Composition of exposure tables. 12. Special exposure techniques. 13. Radiographic technique in general. 14. Special radiographic techniques. 15. Diagnostic stands. 16. Apparatus for X-ray diagnosis. 17. Methods of measuring high tension, current and time. 18. The biological effect of radiation and methods of irradiation. 19. Dosimetry. 20. The dosage of X-rays. 21. Superficial therapy. 22. Deep therapy. 23. Contact therapy. 24. Therapy with radioactive elements. 25. The radiation hazard and protective measures in X-ray diagnosis and therapy.

English edition out of print. Editions in German and Spanish can be supplied.

Van der Werff - RADIOACTIVE ISOTOPES

Their general biological and medical applications

by **J. van der Werff**, M.D.

x + 126 pp, 6×9 in, 43 illus, 1966

Covers the fundamental concepts of basic physics necessary for the understanding of radioactive isotopes, and clearly describes many medical and non-medical applications.

CONTENTS: 1. Energy and matter. 2. Atoms and atom models. 3. Natural radioactivity. 4. Nuclear reactions and artificial radioactivity; atomic nuclei and energy. 5. Methods of producing artificial radioactive isotopes. 6. Characteristic properties of radioactive isotopes. 7. Dosimetry of ionizing rays. 8. Measuring radioactivity. The Geiger-Müller counter. 9. The scintillation counter and other measuring devices. 10. Biological applications of radioactive isotopes. 11. Measuring methods and sources of error. 12. How the thyroid gland functions. 13. Examination for the occurrence of pernicious anaemia. 14. Determination of the blood volume and the survival period of erythrocytes. 15. Measurements on the metabolism of iron. 16. Localisation of brain tumours. 17. Renography. 18. Localization of the placenta. 19. Some therapeutic applications of radioactive isotopes. 20. Radiation hazards and protection. Bibliography.

Editions in English and Dutch can be supplied.

Engineering and metallurgy

Arreman/Jansen - CENTERLOOS SLIJPEN (Centreless grinding)

by **R. Arreman & M. Jansen**

x + 89 pp, 6×9 in, 45 illus, 4 pp photos, 2 tipped-in sheets, 1967

Dutch edition can be supplied.

Bakker/Hovestreijdt - ARC WELDING

Edited by **F. J. Bakker** and **A. J. W. Hovestreijdt**

xiv + 226 pp, 6×9 in, 159 illus, 8 plates, 1964

A modern instructive book on arc welding. It increases the skilled welder's activity to find his way in his trade and stimulates his interest in that trade. Many prominent welding technicians in industry have contributed with their advice in order to enhance the usefulness of this book.

CONTENTS: 1. Welding methods. 2. Safety and industrial hygiene. 3. Knowledge of electrodes. 4. Types of weld groove. 5. Knowledge of metals. 6. Structure of materials and heat treatments. 7. Stresses and deformations. 8. Weldability of metals. 9. Examination of weld metal and welded joints. 10. Electricity and magnetism. 11. Welding apparatus. 12. Reading drawings and plans. 13. Reading diagrams. 14. Construction of boilers. pressure vessels and machinery. 15. Pipes and pipe connections. 16. Constructions. 17. Construction of apparatus.

Editions in English, German and Spanish can be supplied.

Davidson - HANDBOOK OF PRECISION ENGINEERING TECHNICS
Volume I: Fundamentals

Edited by **A. Davidson**

xii + 383 pp, 6×9 in, 392 illus.

This handbook covers, in convenient form, all the different subjects which have bearing on the design of fine mechanics.

CONTENTS: 1. General basic standards. 2. Design theory. 3. Kinematics. 4. Electrical theory. 5. Electrical contacts. 6. Geometrical optics. 7. Development of a new product. 8. Cost price calculation. 9. Electrical safety regulations. 10. Quality control. 11. Statistical control of dimensions. 12. Industrial rights of ownership.

In preparation. To be published in 1968. Dutch edition can be supplied.

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Volume II: Materials

Edited by **A. Davidson**

xiii + 411 pp, 6×9 in, 156 illus, 8 photos, 2 tipped-in sheets

This second volume of the handbook deals with the materials required when designing a product, with theoretical as well as practical data which may be useful to designers and draughtsmen.

CONTENTS: 1. Metals. 2. Plastics and rubbers. 3. Glass. 4. Ceramics. 5. Precious metals. 6. Paper. 7. Paints. 8. Adhesives. 9. Lubricants. 10. Process materials. 11. Cutting fluids.

In preparation. To be published in 1968. Dutch edition can be supplied.

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Volume III: Shaping (Metals)

Edited by **A. Davidson**

CONTENTS: 1. Survey of methods. 2. Cutting methods. 3. Blanking and shearing methods. 4. Cold forming methods. 5. Powder metallurgy. 6. Casting methods.

In preparation. To be published in 1970.

Davidson - HANDBOOK OF PRECISION ENGINEERING TECHNICS
Volume IV: Shaping (Non-metals)

Edited by **A. Davidson**

Approx. 264 pp, 6×9 in, 230 illus.

CONTENTS: 1. Methods of processing plastics. 2. Methods of processing glass. 3. Methods of processing ceramics. 4. Methods of processing mono-crystalline materials.

In preparation. To be published in 1969. Dutch edition can be supplied.

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Volume V: Improvement of properties

Edited by **A. Davidson**

Approx. 262 pp, 6×9 in, 280 illus

CONTENTS: 1. Improvement of surface roughness. 2. Techniques for the improvements of mechanical properties.

In preparation. To be published in 1969. Dutch edition can be supplied.

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Volume VI: Physical and chemical techniques

Edited by **A. Davidson**

Approx. 172 pp, 6×9 in, 92 illus

CONTENTS: 1. Physico-chemical machinery techniques. 2. Deposition of thin films in vacuum. 3. Etching techniques. 4. Printed wiring. 5. Coating with metals and inorganic materials. 6. Coating with organic materials.

In preparation. To be published in 1969. Dutch edition can be supplied.

Davidson - HANDBOOK OF PRECISION ENGINEERING TECHNICS
Volume VII: Various techniques

Edited by **A. Davidson**

Approx. 240 pp, 6×9 in, 254 illus

CONTENTS: 1. Mechanical joints (permanent). 2. Welding. 3. Soldering. 4. Glueing. 5. Wire winding. 6. Applying texts etc.

In preparation. To be published in 1969. Dutch edition can be supplied.

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Volume VIII: Products (Mechanical)

Edited by **A. Davidson**

CONTENTS: 1. Engineering design components. 2. Engineering design applications. 3. Optical engineering design applications.

In preparation. To be published in 1970.

Davidson - HANDBOOK OF PRECISION ENGINEERING TECHNICS
Volume IX: Products (Electrical)

Edited by **A. Davidson**

CONTENTS: 1. Electrical and electromagnetic components. 2. Mechanical designs for electric equipment. 3. Electrical engineering and electronics in precision engineering technics. 4. Recording equipment. 5. Industrial design.

In preparation. To be published in 1970.

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Volume X: Production

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In preparation. To be published in 1970.

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Edited by **A. Davidson**

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In preparation. To be published in 1970.

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Volume XII: Supplements - Subject index

Edited by **A. Davidson**

CONTENTS: 1. The nature of precision engineering technics. 2. Supplements. 3. Subject index (complete).

To be published in 1970.

Douglass - BRAIDING AND BRAIDING MACHINERY

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xi + 140 pp, 6×9 in, 98 illus, 1964

Clearly written by an expert in one of the largest cable firms in the world. Many photographs and drawings not only for engineers concerned with design but for works managers who use these machines and need to know their characteristics, limitations and capacities.

CONTENTS: 1. Braiding materials. 2. Maypole braiders. 3. Some problems associated with care and operation of maypole braiders. 4. Mechanical and operational features of the "Wardwellian" rapid braider.

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by **E. M. H. Lips**

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Muijderman - SPIRAL GROOVE BEARINGS

by **E. A. Muijderman**

xvi + 199 pp, 6×9 in, 91 illus, 1966

In this book the stress has been laid right on the practical as well as the theoretical side of the problem. The provision of a large number of tables and graphs containing data obtained by the optimization of the calculations for spiral groove bearings of various types is intended to make this book of direct use to the user of the spiral groove bearing.

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English edition can be supplied.

Van Rooij - CONSTRUEREN MET HARDMETALEN (Constructing with hard metals)

by **J. van Rooij**

xiv + 318 pp, 6×9 in, 284 illus, 1968

Dutch edition can be supplied.

Van Santen - INTRODUCTION TO A STUDY OF MECHANICAL VIBRATION

by **G. W. van Santen**

Third edition, xviii + 340 pp, 6×9 in, 238 illus, 1961

This book describes the elementary theory of mechanical vibration as well as some of the more important problems encountered in practice.

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Management

Botter - INDUSTRIE EN ORGANISATIE (Industry and management)

Een verkenningstocht

by **C. Botter**

ix + 254 pp, 6×9 in, 103 illus, 1967

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De Korte - TELEVISION IN EDUCATION AND TRAINING

A review of developments and applications of television and other modern audio-visual aids

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xii + 175 pp, 6×9 in, 88 illus, 1967

This book provides a general review of the development and possible scope of television in education and training.

CONTENTS: The audio-visual concept - Television: friend or foe - History and equipment - Television in education and training - ETV in Great Britain - Transparancies and television - Film projection and television - Teaching machines and television - Summary and perspective - Some technical terms explained - Literature.

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Kellermann et al. - VADEMECUM ERGONOMICS IN INDUSTRY

Edited by **F. Th. Kellermann, P. A. van Wely & P. J. Willems**

x + 92 pp, 5¾×8¼ in, 93 illus, 1963

A practical collection of facts, measurements and ideas collated by a work study engineer, an industrial physician, and a psychologist. It is not an elementary textbook on ergonomics nor a child's guide to common sense in design but it packs into 90-odd pages a great deal of information which the designer may quickly want.

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Nelis - BRIEF INTRODUCTION TO THE PRACTICE OF WORK STUDY

by **W. I. M. Nelis**

ix + 112 pp, 6×9 in, 12 illus, 1968

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In preparation. To be published in 1968.

Ringrose - PALLET PATTERN GUIDE

by **M. Ringrose**

Approx. 145 pp, 6×9 in, 135 illus, 8 photos

Based on packing dimensions this pallet pattern guide gives with its many diagrams a quick method for efficient pallet loading.

In preparation. To be published in 1968.

Rubbens - GEPROGRAMMEERD ONDERRICHT EN ONDERWIJSRESEARCH (Research on programmed learning)

by **F. Rubbens**

viii + 102 pp, 6×9 in, 21 illus, 1965

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Schaafsma/Willemze - MODERN KWALITEITSBELEID (Quality control)

by **A. H. Schaafsma & F. G. Willemze**

Second edition, xvi + 480 pp, 6×9 in, 185 illus, 1961

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Van der Veen - INTRODUCTION TO THE THEORY OF OPERATIONAL RESEARCH

by **B. van der Veen**

vi + 200 pp, 6×9 in, 34 illus, 1966

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by **R. N. van Hees & W. Monhemius**
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