tains four other articles that are closely related to the solid state.

The editor of this problem series is Otfried Madelung, professor at the University of Marburg. All the articles are in German (with summaries in English), except the last one which is in English. They are written in a review form, and are properly and richly illustrated, with the pictures contributing to the understanding of the content.

In the first article, Rudolf Bäuerlein reviews the radiation damage in semiconductor materials, components and structural elements, and the change in physical properties caused by this damage. Rudolf Nitsche, in the second article, summarizes the methods of preparation and mentions the various semiconductor crystals obtained by growth from a gaseous atmosphere. This is followed by Eberhard Klein's survey of the physical principles of modern photographic processes, which still apply to a great extent in silver halides.

Martin Polke discusses the physics of electrophotographic copying methods, in which the photosensitivity of various physical properties of the picture-carrying material is used for the production of black-white (initiated by C. F. Carlson in 1938) and of color prints. The next review by Claus Reuber deals with the photocapacitive effect, which is observed in a condenser having a photo-semiconductor material as a dielectricum. Finally, Nikolaus Riehl writes about the electron traps and tunnel afterglow in zinc sulphide. Four shorter articles conclude the book: the theory of superconductors (Gert Eilenberger), diffusion in metals and semiconductors (Alfred Seeger), plasticity of silicon and germanium (Helmut Alexander and Peter Haasen) and transport properties of polyatomic gases in electric and magnetic fields (J. J. M. Beenakker.)

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NEW BOOKS

CONFERENCE PROCEEDINGS

Low-Frequency Waves and Irregularities in the Ionosphere. (Symposium, Frascati, Italy, 23–27 Sept. 1968) N. D'Angelo, ed. 218 pp. Springer-Verlag, New York, 1969. $14.50

Physics of the One- and Two-Electron

Atoms. (Conf. Proc., Arnold Sommerfeld Memorial Meeting and the International Symposium on the Physics of the One- and Two-Electron Atoms, Munich, 10–14 Sept., 1966) F. Bopp and H. Kleinpoppen, eds. 872 pp. North-Holland, Amsterdam, 1969. $30.25

The Design of Physics Buildings. (Conf. Proc. IPPS/RIBA Conference, University of Lancaster, 2–4 Jan. 1969) RIBA Publications, London.

Topical Conference On Weak Interactions. (Sponsored by the International Union of Pure and Applied Physics, CERN, Geneva, Switzerland, 14–17 Jan., 1969) 533 pp. CERN, Geneva, Switzerland, 1969.

Nuclear Structure and Nuclear Reactions. (Proc. of the International School of Physics "Enrico Fermi," Varenna, Italy, 26 June–15 July, 1967) M. Jean and R. A. Ricci, eds. 813 pp. Academic, New York, 1969. $30.00

Particle Physics. (Conf. Proc., VIII Internationale Universitätswochen Fur Kernphysik, 1969 Der Karl-Franzens-Universitat Graz, at Schladming, Steiermark, Austria, 24 Feb.–8 March 1969) Paul Urban, ed. 550 pp. Springer-Verlag, New York, 1969. $24.50

Theoretical Physics. (Eighth Annual Eastern Theoretical Physics Conference, Syracuse University, 10–11 Oct. 1969) Physics Department, Syracuse University, $1.50

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Nuclear Energy, Vol. 106: Experimental Neutron Thermalisation. By P. E. Egelstaff and M. J. Poole. 399 pp. Pergamon, New York, 1969. $17.50

ATOMS, MOLECULES, CHEMICAL PHYSICS

Rotational Structure in the Spectra of Diatomic Molecules. By Istvan Kovacs. 320 pp. American Elsevier, New York, 1970. $16.75

Crystal Structures, Vol. 6: The Structure of Benzene Derivatives. (2nd edition). By Ralph W. Wyckoff. 455 pp. Interscience, New York, 1969. $27.50

Molecular Complexes. By R. S. Mulliken, W. B. Person. 498 pp. Wiley, New York, 1969. $19.50

Methods of Molecular Quantum Mechanics. R. McWeeny, B. T. Sutcliffe, eds. 298 pp. Academic, New York, 1969. $13.50

FLUIDS, PLASMAS

Gasdynamics, Vol. 1: Nonequilibrium Flows, Part II. Peter P. Wegener, ed. 236 pp. Marcel Dekker, New York, 1970. $13.50

Plasma Dynamics. By T. J. M. Boyd, J. J. Sanderson. 348 pp. Barnes & Noble, New York, 1970. $10.75

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Lecture Notes in Physics, Vol. 1: Wärmeleitung in Kristallen, Theoretische Grundlagen und Fortgeschrittene Experimentelle Methoden. J. C. Erdmann, ed. 283 pp. Springer-Verlag, New York, 1969. $5.50

Séminaires de Chimie de L'État Solide: Influence des Changements de Phase sur les Propriétés Physiques des Corps Solides. J. P. Suchet, ed. 194 pp. Masson, Paris, 1970. 65F

Advances in Structure Research by Diffraction Methods, Vol. 3. R. Brill, R. Mason, eds. 251 pp. Pergamon, New York, 1970. $14.00

Principles of Crystal Structure Determination. By Gene B. Carpenter. 231 pp. Benjamin, New York, 1969. $14.50

Physics of Strength and Plasticity. Ali S. Argon, ed. 399 pp. MIT Press, Cambridge, Mass., 1969. $12.50

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Mathematical Statistics. By B. L. van der Waerden. 361 pp. Springer-Verlag, New York, 1969. $18.70

Applications de la Théorie des Groupes à la Mécanique Quantique. (Trans. from Russian) by M. Pétrachène, E. Trifonov. 252 pp. Masson, Paris, 1970. 65F

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Formulations of Classical and Quantum Dynamical Theory. By Gerald Rosen. 149 pp. Academic, New York, 1970. $9.50

La Transformation de Laplace. By Jean Hladik. 237 pp. Masson, Paris, 1969. 80F

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Elementary Radiation Physics. By G. S. Hurst, J. E. Turner. 166 pp. Wiley, New York, 1970. $7.95

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Éléments de Chimie Physique: Thermodynamique Équilibres Chimiques. By J. Ficini, N. Lumbroso-Bader, J. C. Depezay. 177 pp. Hermann, Paris, 1969. 30F

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The Wykeham Science Series, Vol. 1: Elementary Science of Metals. By J. W. Martin. 135 pp. Springer-Verlag, New York, 1969. $2.80

The Wykeham Science Series, Vol. 2: Neutron Physics. By G. E. Bacon. 143 pp. Springer-Verlag, New York, 1969. $2.80

The Wykeham Technological Series, Vol. 1: Frequency Conversion. By J. Thomas, W. E. Turk, M. J. Beesley. 207 pp. Springer-Verlag, New York, 1969. $3.50

Physics. (2nd edition) By K. R. Atkins. 774 pp. Wiley, New York, 1970. $11.95

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