

КНИГИ, ПОЛУЧЕННЫЕ РЕДАКЦИЕЙ  
BOOKS RECEIVED BY EDITORIAL OFFICE

**T. S. Moss: Optical Properties of Semi-conductors.** Published in 1959 by Butterworths Scientific Publications, London. 280 pp., 74 figures, 21 tables, over 600 references, index. Bound, 50 shillings.

In the first six chapters the book deals with the theory of the optical properties of a conducting medium, absorption and emission processes, the connection between optical constants, magneto-optical phenomena and all internal photoeffects. The other ten chapters give a survey of the properties of the most interesting of semi-conducting materials (diamond, silicon, germanium, selenium, tellurium, lead sulphide, selenide and telluride, zinc, cadmium and copper, indium antimonide etc.).

The book is intended for research workers and university students who wish to specialize in this field.

**Louis Rolin: Fonctions sphériques de Legendre et fonctions sphéroïdales II.** Published in 1958 by Gauthier Villars Paris, 384 pp., 34 figs., unbound, 5000 Fr.

The second part of a three-volume work comprises chapters IV to VI containing a treatise on general conjugate Legendre functions, their approximate values and asymptotic development, and on simple inequalities verified by them. Finally it deals with series of Legendre polynomials, conjugate Legendre functions and Laplace polynomials.

The book is intended for scientists in mathematics and theoretical physics.

**Electromagnetic Phenomena in Cosmical Physics** (Symposium No. 6 of the International Astronomical Union), ed. B. Lehnert. Published in 1958 by Cambridge University Press. 546 pp., 145 figs., 24 tabs., 520 references, index. Bound 50 shillings.

A collection of contributions to the sixth symposium of the International Astronomical Union in Stockholm 1956. The papers deal with questions of magnetohydrodynamics, solar electrodynamics, stellar magnetism, interplanetary magnetic field and the electromagnetic state of interplanetary space. The book gives a good survey of the state of present-day research in this field. It is intended primarily for astronomers and physicists.

**W. Galbraith Ph. D.: Extensive Air Showers.** Published in 1958 by Butterworths Scientific Publications in London. 212 pp., 53 figs., 17 tabs., 233 references. Bound 40 shillings.

A monograph on extensive air showers, dealing with the complex set of effects excited by the passage of very high-energy cosmic particles through the air at approximately 20 kilometres above the surface of the Earth, it gives the results of work in this field in the last twenty years or so. It contains an explanation of the origin of showers, the transversal distribution of electrons, penetrating particles, the time distribution of showers and Čerenkov's rays, excited by extensive air showers. The book is intended for university students reading physics and scientists.

**A. van der Ziel: Fluctuation Phenomena in Semi-conductors.** Published in 1959 by Butterworths Scientific Publications in London. 168 pp., 17 figs., 1 tab., 283 references, index. Bound 35 shillings.

The book gives a survey of the present state of theoretical and experimental results in research into noise in semi-conducting parts and equipment. It is intended for scientists as an aid in clarifying hitherto unanswered questions in this field.

**G. H. Wannier: Elements of Solid State Theory.** Published in 1959 by Cambridge University Press. 270 pp., 88 figs., 4 tabs., 99 references, 84 problems to be solved, index. Bound 35 shillings.

The book contains a fluent but brief treatise on solid state theory based on the latest results of research. It deals with the geometry of crystals and diffraction of rays on crystal lattices, the dynamics of lattice oscillations, questions of magnetism, the electron theory, the band theory and the dynamics of electrons. It is intended for advanced students of physics and scientists in research institutes and universities. All the chapters are supplemented with problems to be solved.

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