experimentalist and the theorist, the beginner and the initiated alike. Daniel Bes and Raymond Sorenson's review of the pairing-plus-quadrupole model of medium and heavy nuclei comes very appropriately after the first volume's articles on nucluear SU(3) model and Hartree–Fock theory of light nuclei. The review is successful in illustrating the usefulness of phenomenological models and in focusing the salient aspects of the nuclear interaction that often get obscured in the so-called "exact" calculations (some of which are becoming possible now).

Charles Glasshauser and Jacques Thirion review polarization phenomena in nuclear reactions, a subject that has perhaps not yet reached the same level of maturity as the other topics. Peter Signell has reviewed nucleon–nucleon potentials. Instead of going into painful details of data fitting procedures, he addresses himself to a comparative discussion of many phenomenological potentials that have been used to fit the nuclean–nucleon scattering data as well as the proton–proton bremsstrahlung results that have recently become available.

The authors have very judiciously avoided details that can only detract from the readability of the reviews, such as elaborate proofs of theoretical results. The result is a volume that one can read without headaches. The reviews are, however, exhaustively referenced, so that one can find all the additional details.

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Physics of Semiconductor Devices

By S. M. Sze
812 pp. Interscience
New York, 1969. $19.95

This book on electronic devices should prove very appealing to solid-state physicists. In every case the theory that underlies the mechanism under discussion is elaborated with sufficient detail and references so that an interested reader may work out the complete picture for himself.

In addition, there are many features that one does not usually find in a physics book, making this book a joy to read. First there are untold numbers of diagrams illustrating problems; ample tabular data is available, and technical glossaries. These become particularly necessary in view of an avalanche of new devices having exotic names (IMPATT, FET, MIS, IGFET, TFT,) as well as performing exotic functions.

The book appears particularly strong in silicon technology, the area of greatest technical involvement at the persent day. This is not surprising as the author, S. M. Sze, is at Bell Telephone Laboratories, a world center for this research. It would appear that he has written a "classic," that is, a book that is destined to be outstanding in its field for the next two or three years, at which time technology might take another zig-zag and render it obsolete.

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NEW BOOKS

CONFERENCE PROCEEDINGS

Proceedings: 4th International Symposium on Electron and Photon Interactions at High Energies. (Liverpool, 14–20 Sept. 1969). D. W. Braben, ed. 328 pp. Daresbury Nuclear Physics Laboratory, England, 1969. £6

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ELEMENTARY PARTICLES

Phenomenological Theories of High Energy Scattering: An Experimental Evaluation. By Vernon D. Barger, David B. Cline. 201 pp. Benjamin, New York, 1969. Cloth $15.00, paper $6.95

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An Introduction to Hamiltonian Optics. By H. A. Buchdahl. 360 pp. Cambridge U. P., New York, 1970. $18.50

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The Theory of Diffraction and the Factorization Method. By Lev A. Weinstein. 411 pp. Golem Press, Boulder, Colo., 1969. $15.00

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