second-order transitions, chemical thermodynamics, and solid-state and electrical applications are all included. An especially interesting part is the extended coverage of fluctuation and thermodynamics.

In summary, the book will be an exacting but rewarding taskmaster, pioneering a new approach to an old subject that may well become the standard approach of the future.

Michelson and the Speed of Light. By Bernard Jaffe. 197 pp. (Science Study Series S 13). Doubleday Anchor Books, Garden City, N. Y., 1960. Paperbound $.95. *Reviewed by R. Bruce Lindsay, Brown University.*

IN view of the great contributions made by A. A. Michelson to the advancement of physics, it is surprising that no full-scale biography has yet been published, though he died some thirty years ago. This makes Jaffe's biographical sketch all the more welcome. It is one of three scientific biographies to appear so far in the Science Study Series of books initiated by the Physical Science Study Committee, now operating as a part of Educational Services, Inc., of Watertown, Mass. The purpose of these paperbacks, which have met with considerable public success, is to provide the student or layman with accurate, but readily grasped, accounts of physical science.

Jaffe has provided a chatty volume, which combines in pleasant fashion an account of Michelson's rather dramatic career with sufficient explanation of the properties of light and the theory of relativity to make his scientific achievements understandable. Simple but clear diagrams elucidate Michelson's precision measurements in optics and emphasize the high standards of accuracy he set for himself. The book is not just a panegyric of a highly successful and distinguished physicist. The human side is well brought out, and the limitations, as well as the achievements, of the man are honestly detailed.

This book should serve a very useful purpose in

Autographed photograph of A. A. Michelson (shown with R. A. Millikan, H. G. Gale, and Carl Kinsley in front of the University of Chicago's Ryerson Laboratory) dates from 1907, the year Michelson won the Nobel Prize. The photographer, then one of their students, was Marguerite O'Loghlin Crowe, now a faculty member at the University of Florida.

interesting high-school and college students in physical science. It is hoped it may prove to be the forerunner of many similar biographical volumes on famous American physicists.

Electronic Processes in Solids. Based on 1957 Lectures by Pierre R. Aigrain. Prepared by Roland J. Coelho and Gianni Ascarelli. 67 pp. The Technology Press of MIT and John Wiley & Sons, Inc., New York, 1960. $4.00. *Reviewed by George Weiss, Institute for Fluid Dynamics and Applied Mathematics, University of Maryland.*

THERE is something insidiously inviting about a small book on a technical subject. The attraction, of course, is generated by the reader who has the unvoiced hope that he is about to get something for nothing. Very few monographs of the size of this book are successful as an introduction to a subject for the completely uninitiated. This summary of Professor Aigrain's lectures delivered at MIT is a notable exception.

The book begins with an account of the Born-Oppenheimer approximation and the condition for its validity, and a discussion of the Hamiltonian for a solid in the harmonic approximation. Of some interest is Aigrain's definition of creation and annihilation operators in explicit form. Following these introductory pages, the notes discuss phonon scattering, the various approximations to electronic-wave functions, and an introduction to conduction theory using Wannier wave functions. Later sections discuss the elementary theory of transport and various mechanisms for electron and phonon scattering.

It would be too much to expect that this small book would be enough to make any physicist an expert on electronic processes in solids, but it is an interesting introduction which illuminates the principal areas of investigation and serves as a useful guide to further reading.

Solid State Physics in Electronics and Telecommunications. IUPAP Conf. Proc. (Brussels, June 1958). Edited by M. Desirant and J. L. Michiels. Vol. 1, Semiconductors, Part 1, 638 pp. Vol. 2, Semiconductors, Part 2, 645 pp. Vol. 3, Magnetic and Optical Properties, Part 1, 557 pp. Vol. 4, Magnetic and Optical Properties, Part 2, 404 pp. Academic Press Inc., New York, 1960. $18.00 each. *Reviewed by Joseph G. Hoffman, University of Buffalo.*

THERE are 235 papers in the proceedings of the conference on solid-state physics held at the 1958 World's Fair in Brussels. Of these, 142 are in English, 52 in French, and 41 in German. This four-volume compilation of highly technical material is valuable when considered solely as a compendium of concepts explored by investigators in seventeen different countries. From a bibliographic standpoint, the collection is an essential reference work because the contributors