bution to diffraction theory of aberrations. It should be on the shelf of everyone working in this field, and it will be especially useful to designers of modern optical instruments.

Elementary Introduction to Nuclear Reactor Physics. By S. E. Liverhant. 447 pp. John Wiley & Sons, Inc., New York, 1960. $9.75. *Reviewed by Jacques Romain, General Dynamics.*

PROFESSOR Liverhant thinks that between a mathematically rigorous treatment of nuclear physics, accessible only to trained specialists, and a shallow qualitative exposition of no practical use there can be a middle level suitable for both advanced undergraduate students in physics and for engineering students. I feel he has fully succeeded in writing such a book, which may also be helpful as intermediate reading before tackling more advanced textbooks. It may be of interest as well to scientists in neighboring fields who wish to gain a neat knowledge of the physics involved without having to go through all of the mathematics. A very carefully prepared index, and an index of tables, allow the book to be used as a glossary of the nuclear vocabulary and an elementary reference book.

The book begins with three review chapters in which the author broadly explains the fundamental features of those aspects of nuclear physics which have a bearing on the physics of reactors. He proceeds to study, in a fair amount of detail, neutron reactions, fission and chain reactions, and the working conditions of a reactor. An elementary outlook on the nonsteady reactor, on nuclear radiations and their detection and measurement, and a general outline of health physics are included. The author is expert in acquainting his reader painlessly with unfamiliar concepts. He shows the calculations when they are simple enough, and quotes the main equations when the mathematics becomes too involved. (The mathematical knowledge required does not exceed general calculus and elementary differential equations.) Numerous diagrams are a considerable help in understanding. A fairly extensive bibliography is provided.

The stress is definitely on applications. The text is sprinkled with worked-out examples that either illustrate what has just been said or help to introduce the next topic. The choice of examples and problems covers a very wide range of practical applications.

Théorie des Ondes dans les Plasmas. By J. F. Denisse and J. L. Delcroix. 167 pp. Dunod, Paris, 1961. 16 NF. *Reviewed by L. C. Levitt, Boeing Scientific Research Laboratories.*

BOTH the aims and scope of this pocket-sized monograph are modest. It is devoted to a very detailed discussion of small-amplitude plane waves in plasmas. The treatment is entirely in terms of the so-called moment, or transfer, equations. Within the framework