description of the axiomatic approach and the Wightman program. Thereafter things become more breathless with a review-article style account of dispersion relations, which merely alludes to many important topics and omits others. It is inevitable. Events are moving too fast for any single author. However we shall look forward with pleasure to the possibility of Professor Schweber writing a third book, in which he will have more time and space to develop this theme in the rewarding way he has handled the earlier developments.

Neutron Detection. By W. D. Allen. 260 pp. Philosophical Library, Inc., New York, 1960. $10.00. *Reviewed by Kamal K. Seth, Duke University.*

THIS small book by W. D. Allen, who is responsible for the development, perfection, and standardization of some of the most commonly used neutron detectors, is, by the choice of its subject, of limited interest. Nevertheless, because it is written in a clear and lucid style, and because it is for the most part self-sufficient (in that it includes the necessary background material), it should provide interesting and informative reading to those who are generally familiar with nuclear physics and would like to know more about methods of neutron detectirn. Since the book was written in 1959 it does not include some of the latest advances in neutron-detection techniques, e.g., the development of neutron-gamma discriminator circuits and the (still embryonic) lithium sandwiched solid-state detectors.

Lumière. By P. Fleury and J.-P. Mathieu. 523 pp. Eyrolles, Paris, 1961. 71.40 NF. *Reviewed by L. Marton, National Bureau of Standards.*

APPARENTLY, *Lumière* is Volume 7 of a larger textbook entitled *Physique générale et expérimentale*. I say "apparently" for there is merely a vague indication that it may be. The preface indicates that the present volume complements Volume 4 (entitled *Images optiques*) in the same series and is really a second edition of an earlier *Images optiques*. The first edition of *Images optiques* contains nothing but the proceedings of a symposium on diffraction effects in image formation. I do not know what the content of the second edition is because I was unable to locate it. (I explored all neighboring libraries, including the Library of Congress.) The preface to the present volume states that the first volume contains geometrical optics and instrumental optics, as well as the aspects of wave optics which are important in the formation of optical images.

The present volume consists of 19 major chapters. After an introductory chapter, treating interaction between radiation and matter and the insufficiency of electromagnetic theory for its complete explanation, justification is given for quantum considerations. The next six chapters are devoted to measurements of light quantities, starting with the velocity of light, then refractive index, wavelengths, intensity of light, colorimetry, and polarization. The treatment is at a good graduate level and the two authors have done a good job in presenting the subject. The next four chapters deal with refraction and transmission of light in both isotropic and anisotropic media. Anisotropy is considered in quite a bit of detail. All this is followed by four chapters on spectroscopy. The last three chapters contain supplementary matter; Chapter 17 on light in geophysics, astrophysics, chemistry, and biology; Chapter 18 on the principle of relativity and its consequences; and last but not least (Chapter 19) certain aspects of quantum mechanics. The whole book is written in the tradition of the great French school of optical books and presents quite successfully a modernized version of the classical French book of optics. There are a certain number of omissions but in the absence of comparison with Volume 4 I don't know if I am right in complaining about them or not. Nevertheless, in the extensive chapter on photometry there is absolutely no mention of the law of Helmholtz-Lagrange. Neither do I find any mention of the Kronig-Kramers relationship, which is now assuming a more important role in current treatment of the optical constants. Another slight defect of the book is that, although it is obvious from the beginning that the authors tried to limit their units to the mks system, in the text they follow a wide variety of units. For instance, the wavelength is given on page 205 in angstroms, on page 216 in 10^{-8} meters, on page 218 in centimeters. On page 229, we are back to 10^{-8} meters. On page 234, angstroms again. Likewise in Chapters 13 and 14. Besides these units the millimicron and micron are used for wavelengths. It may be a good exercise for the graduate student to switch back and forth between units, but is it really necessary? These are very minor matters but they can sometimes be a little irritating.

The book is highly recommended to all those who would like to compare graduate treatment of optics in the United States with graduate treatment in France.

Electrolytic Dissociation. Vol. 8 of Physical Chemistry Monographs. By C. B. Monk. 320 pp. Academic Press Inc., New York, 1961. $10.00. *Reviewed by Stuart A. Rice, Institute for the Study of Metals, University of Chicago.*

BASICALLY this book is a very extended review article concerned with the methods of determining dissociation constants in electrolyte solutions, and the results of such measurements. Despite the 1022 references (no account taken of degeneracy) there are a number of surprisingly serious omissions indicative of the general principles which guided the author. In the first seven chapters the author discusses a variety of equilibrium and nonequilibrium methods applicable to the study of electrolytic dissociation. In general, the treatment of the theory is rather abbreviated and standard in form. Such theory as is given is, with one

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