

cuss the methods of measurement. Much of the book is concerned with the problems of the health physicist and could supplement on-the-job training for HP novices. Qualified HPs, however, will find the book too pedestrian and not sufficiently stimulating.

Though the occasional mention of transistorized circuitry indicates some concession to modern practice, it is apparent that there has not been sufficient up-dating in the current revision. The 1953 pulse spectrum display on page 74 is as out of date as a two-dollar bill.

In reviewing the first edition (*Nucl. Sci. Eng.* **10**, 4, 1961), L. S. Taylor stated "It is unfortunate that in a few spots the book is already dated. In June 1958 when it was first published, present day concepts regarding radiation dosimetry and units were already available. These do not appear anywhere in the book. Similarly, at that time some rather radical changes had been made in the concepts of radiation protection standards and these also do not seem to be reflected." This statement is equally true of the 1963 edition. The "rep," long since discarded by the ICRP, is still included and the definition given for the "rem" is not correct. In rapidly moving fields, such as the one covered, authors are faced with the difficult task of avoiding what may rapidly become dated while at the same time providing enough substance to prove of value—a challenging tight-rope, indeed.

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**Neutron Detection.** By W. D. Allen. 45 shillings, Geo. Newnes Ltd., London.

The author of this little (190 pages) volume has succeeded admirably in his stated purpose of addressing the book "to those who, with some back-

ground knowledge of nuclear physics and particle detectors, require a more detailed knowledge of the main methods of neutron detection." His style is always lucid and clear, and the book is a pleasure to read. After the introduction, which contains some historical comments, a discussion of the principles of neutron detection, and a survey of neutron sources, the remaining four chapters deal with the reactions used in neutron detection, the chief instruments of neutron detection, applications of neutron detectors, and neutron standards. The author does a good job of qualifying his general statements so that his main points stand out clearly, but with appropriate indications of their limits of validity. When he discusses a matter very briefly, he makes it possible for the reader to get more detailed information readily, usually by a footnote reference to a book, a published paper, or a laboratory report.

An extremely useful feature of the book is its extensive reference index and bibliography, which occupies 26 pages and is arranged according to the topics covered in the text. The references are well-chosen and show a working familiarity with the entire field. They cover unpublished laboratory reports as well as the journal articles. There is also a set of 12 appendices which present a number of experimental curves along with the discussion of several terms, such as cross section, used in the text without definition.

The book was first published in 1960, and the latest references in it were published in 1959. Thus the strongest impression the reader gets is an increased awareness of the very large amount of work done and the advances made both with respect to apparatus, such as semiconductor particle detectors, and with respect to the analysis of data, such as in the case of the thermal-neutron flux perturbation problem, since the book was written.

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