

derstanding "how nature works". The book also includes a description of how particles lose energy as they pass through matter and a few related topics such as the application of the field-ion microscope to damage investigations.

To put it explicitly, this book is highly recommended. It is well written, it is short, and the information it contains can be efficiently assimilated. It should be particularly useful for anyone, from undergraduate to experienced researcher, who is learning about radiation effects for the first time. It is also recommended to persons who have been doing radiation work, particularly of an applied or engineering nature, and have an incomplete or old-fashioned understanding of the basic physical phenomena.

Paul W. Levy, a former nuclear physicist turned solid-state physicist, is a staff member of the Physics Department of Brookhaven National Laboratory, where, since 1952, he has been engaged in basic radiation-damage studies on a large variety of inorganic nonmetallic materials including insulators and explosives. His BS degree was obtained from the University of Chicago in 1943 and his PhD degree from Carnegie Institute of Technology in 1954.

A BROAD SUBJECT

Title Mechanics of Solids and Strength of Materials

Authors F. Warnock and P. P. Benham

Publisher Sir Isaac Pitman & Sons, Ltd., 1965

Pages xix + 595 + XVI plates

Price 50 shillings

Reviewer Joseph Marin

This text by Warnock and Benham is different from most texts on the subject as it combines both the subjects of stress analysis and material behavior.

The material is presented in a thorough manner. However, in view of the broad coverage of the subject, only summaries of information on some subjects could be included. For curricula where a condensed version of both strength of materials and mechanical properties of materials is indicated, this text should prove useful.

Joseph Marin has just been appointed Professor of Materials Science in the Department of Materials Science and Chemistry of the US Naval Postgraduate School at Monterey, California. Prior to this he was Head of the Engineering Mechanics Department of Pennsylvania State University. He has been teaching engineering mechanics and materials since 1930 and has conducted about 50 spon-

sored research projects, written over 150 technical papers and 80 final technical reports in this area, and developed about 20 new types of materials testing machines. He is the author of five books on materials and stress analysis and a member of numerous technical societies and committees. His undergraduate work was done at the University of British Columbia, and his PhD degree was obtained from the University of Michigan in 1935.

FIRST OF A NEW SERIES

Title Progress in Nuclear Techniques and Instrumentation, Vol. 1

Editor F. J. M. Farley

Publisher John Wiley & Sons, Inc., 1965

Pages viii + 398

Price \$17.50

Reviewer E. Alfred Burrill

The scope of this new "progress series" is indeed ambitious, as expressed by the editor in the preface to the first volume: "We shall range over all aspects of experimental technique that can be useful, both in the study of nuclei themselves, and in high-energy particle physics... Our policy will be to present techniques which are new, but have, nevertheless, reached sufficient maturity to be passing into current experimental use". The selection of the six review papers in the first volume indicates that the editor has not yet been deflected from his goals; the subjects cover moderate-energy cyclotrons, polarized-ion sources and polarized targets, particle detection by nuclear emulsions and by spark chambers, and data handling.

It is difficult to review a compilation of this type, because it is essentially a bound version of six individually conceived and executed monographs with no common denominator or connection except the title of the book and its preface. However, a few general comments can be made before reviewing each chapter. I am pleased to see that each contribution has its own date. For those who do not follow these rapidly progressing fields, the point in time at which the review was made is of importance. On the other hand, it is unfortunate that the individual dates (January to June 1964) are about a year earlier than the release date of the book. A lot of progress has been made in these fields during the past year. All publishers will, I am sure, sympathize with my wistful desire to have "instant publication".

As would be expected, the styles, approaches, and scope of the six chapters are diverse. All contributions are well organized within themselves, with extensive bibliographies. A few comments on each work follow: