

to articles since that date, even as late as 1955, are included and thus the volume is remarkably current.

The striking feature of this volume on zinc (as in the case of preceding volumes) is the exhaustive but concise and critical review of the literature. One can have nothing but admiration for the character of the work performed by the staff of thirty-eight whose names appear on the title page. The painstaking thoroughness and monumental scholarship so characteristic of Germans in a work of this type, are clearly discernible. It should also be remarked that the increased use of diagrams, figures and graphs (191 against 14 in the previous volume) has added to the usefulness.

The extent of the coverage is shown by the main headings and the number of pages devoted to each: occurrence (136 pages), technical preparation (132 pages), preparation of special forms (6 pages), enrichment and separation of isotopes (2 pages), physical properties (124 pages), electrochemical behavior (137 pages), chemical behavior (68 pages), zinc alloys (23 pages), surface treatment of zinc and zinc alloys (96 pages), physiological effects (4 pages), detection and determination (43 pages), and compounds of zinc (255 pages).

The zinc technologist from the United States might at first be troubled by the lack of an index but this proves to be no handicap due primarily to the logical organization of the book and the detailed Table of Contents (36 pages). It is possible that this reviewer might at times have arranged some of the subject matter a little differently but that condition could always exist.

What Dr. W. J. Kroll, undoubtedly the world's foremost authority on titanium, said in reviewing the 481-page volume on that metal—"A publication such as this can, of course, not be read as a whole; it can only be used page-wise for its references"—is equally true of the volume on zinc. However, to test out the accuracy of presentation, this reviewer took as test cases a number of specific subjects on which he claims to have some knowledge and he must confess that he bows in humility before the authors. It could well be

a high-brow parlor game to seek out errors but this reviewer fears it would not be a rewarding one.

Notwithstanding the financial support of West German government and chemical industry, the price of the volume is high (\$138.00) but clearly it is only a small portion of the cost for so monumental a work.

THE EAGLE-PICHER COMPANY
JOPLIN, MISSOURI

A. PAUL THOMPSON

Rare Earths in Biochemical and Medical Research. A Conference Sponsored by the Medical Division, Oak Ridge Institute of Nuclear Studies, October, 1955. Edited by GRANVIL C. KYKER and ELIZABETH B. ANDERSON. Office of Technical Services, Department of Commerce, Washington 25, D.C. 1956. xviii + 468 pp. 20.5 X 26.5 cm. Price, \$2.20.

This book presents the reports of a conference on the rare earths in biochemical and medical research. It contains some seven papers on the chemistry, two papers on the isotopes, four on the pharmacology, nine on the biochemical and metabolic aspects, as well as eleven papers on the possible medical applications and the dosimetry of radioactive rare earths. Because the book is made up of photoreproductions of the best available copies, there is considerable variation in quality, style, and format.

Since the conference dealt with so many different aspects of the rare earth science and technology, the book affords a valuable source of information, extensively documented for the most part with numerous literature references, in an area which is altogether inadequately covered by any standard reference texts. The editors have considerably enhanced the practical usefulness of this symposium by having appended an author and subject index.

UNIVERSITY OF ROCHESTER
SCHOOL OF MEDICINE AND DENTISTRY LEON L. MILLER
ROCHESTER 20, NEW YORK