and the like. Indeed, so rapid have been developments along some of these lines that it becomes of deep interest merely to note from one of these something of the extent to which investigation has been broadened from volume to volume in the use of new words that represent names of new compounds, new subject headings, and new types of equipment—additions to the vocabulary that represent definite milestones in the advancement of our knowledge. On the whole, this book represents an exceedingly helpful addition to a series that makes more readily available the literature on control of our insect enemies—enemies that are of sufficient importance that they affect vitally the geographical distribution, the food supply, and the health and general welfare of millions of human beings all over the world.

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The Metallurgy of Zirconium. Benjamin Lustman and Frank Kerze, Jr., Eds. McGraw-Hill, New York, 1955. xviii + 776 pp. $10.

Although much has been written about elemental zirconium over the years, one would be led to the belief that it has had wide usage in nonnuclear associated applications. Actually, the only tonnage use of zirconium that has materialized is a consequence of the U.S. Atomic Energy Commission's drive for low-hafnium zirconium as a cladding for fuel elements.

In view of the foregoing, it is refreshing that the first chapter of this book deals with zirconium in its nuclear reactor applications and that the matter of minerals containing the element, reserves and potential reserves, is not presented first as is so customary. Although some of the information contained in the book has been published, it is extremely helpful to get all of the available information between one set of covers, particularly since the authors carefully cross-checked references of the Technical Information Service, which sometimes are not covered completely. Because of this comprehensive coverage, not only are Lustman and Kerze to be complimented, but the contributing authors should be recognized as having done a very good job.

There is no intent whatsoever to detract from the great contributions made by Kroll. However, it is an error to credit him with an entire process from zircon through low-hafnium ingot, as is done on page 71. This does not do proper justice to the very important and excellent work done by the personnel of the Y-12 plant on the zirconium-hafnium separation process, and it is hoped that in future editions a bit more editorial care will be exercised on this rather minor matter.

Although there is much more to be found out about the metal zirconium and its alloys, there is reason to believe that this book represents a job so well done that it will serve as a bible for those who have to plan in this area.

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