great stacks of unread reprints, preprints, and xerox copies.) Because libraries feel they must acquire books very soon after publication, few of them wait for books to be reviewed so that they can then buy the good ones. Instead they buy them all. Publishers know this and can rely on a certain block of institutional sales irrespective of whether a book is good or bad. They use this more-or-less guaranteed block of sales to cover their initial costs, and can therefore afford to publish anything. In fact, there is a genuine incentive to publish anything; since buying is uncritical, total sales depend largely on the number of titles being offered, regardless of their merit. Result: a 'library crisis.'

What can be done about it? *Nothing*, if we keep on buying everything that is offered, regardless of whether it is good or bad. *Everything*, if we recommend that our libraries not buy books until they have some indication, preferably good reviews in the open literature, that the books are good. In buying other things, like insurance or used cars, it is good to be wary of salesmen who say, "You can't afford to wait." I recommend that libraries be similarly wary of anyone who tries to tell them they cannot afford the time and effort careful buying demands.

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About the Reviewer: Lawrence Dresner has been a theoretical physicist at the Oak Ridge National Laboratory since 1954. His work, until recently, has been in the fields of reactor and nuclear physics. He is currently working on the problem of purifying salt water. He confesses charily to having written a book on resonance absorption of neutrons and to having translated another on neutron physics.

Phase Diagrams for Ceramists. By E. M. Levin, C. R. Robins and H. F. McMurdie. The American Ceramic Society, Columbus, Ohio. 602 pages. $18.00.

This is the seventh compilation of phase diagrams issued under the auspices of the American Ceramic Society. It has been five years since the last supplement was issued and 31 years since Hall and Insley published their first group of 178 diagrams. The present edition containing over 2000 diagrams has a 40% increase in number over the 1956 issue with, significant additions in fused salt, metal-oxygen and rare earth systems.

One of the most comprehensive of its kind, this work is an indispensable reference for scientists and engineers in the materials field. The diagrams are introduced with an excellent discussion of terms, the phase rule and instruction for interpretation of the systems. With this introduction, a much fuller understanding of high-temperature phase equilibria is possible for the man not specifically trained in the field who nevertheless must refer to phase diagrams for his work. For the man who would like to pursue the field further, there is a brief section on experimental methods and a short bibliography. It is suggested that the work would be improved by making both of these sections more comprehensive.

The nuclear scientist and engineer are particularly favored in this edition by the fused-salt diagram additions. The fluoride diagrams published by the group at Oak Ridge National Laboratory represent some of the finest work of its kind. Rare-earth system additions have grown from essentially none to nearly 200 and a similar growth is shown for one, two and three metal-oxygen systems (about 150 in the new edition). There have been some additions for uranium and thorium, and five plutonium systems are reported. Conspicuously absent are carbide systems, which are of increasing importance to nuclear technologists. While these systems can be found in other works, it would be convenient for workers in the nuclear field to have them in this work.

The large increase in hydrothermal diagrams (nearly 50%) is welcomed and future editions will undoubtedly reflect the growing interest in high-pressure hydrous systems. The rapidly growing anhydrous high-pressure field should also be a source of many new diagrams.

The table of oxide melting points on page 569 is a valuable feature of the book, but many of the data cited are outdated. For example, a melting point given for UO_2 was measured in 1911 and is nearly 700°C in error. It should no longer be included with the more recent determinations. The diagrams show improvement in uniformity and reflect the more critical selection by the authors. While it is not the authors' intent to evaluate accuracy or change the original drawings, the policy of selection of the best diagrams where several may exist has made this edition better.

For the benefit of the reader who has not used this work previously, I refer to the system index found on page 581 which is arranged alphabetically giving the diagram number rather than the page number. The diagrams are listed sequentially as figures. The diagrams cite the authors and references from which they are published so that more detailed study can be made by the user if he so wishes.

The reviewer would be remiss if he did not compliment the authors and editors of this outstanding reference work. Untold hours have gone into maintaining this collection of phase diagrams up-to-date and readily usable.

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