

of data or figures presenting data are interspersed throughout the text. This arrangement may be convenient when solving the problems of the chapter, but it is difficult to find the data again. An appendix at the end of the book for all data would have been preferable. For a book stressing the correlation and prediction of data, the use of such out-dated material as the van der Waals equation (with the constants evaluated from T_c and P_c) for estimating properties, the reprinting of the constants of the Beattie-Bridgeman equation, the use of the corresponding states correlation utilizing z_c as the third parameter and the reprinting of a pressure-enthalpy diagram for methane from 1945 do not indicate to the

student the changes that have occurred in the past ten years in the estimation of properties. No mention is made of the Redlich-Kwong equation in this book, but the reader is referred to Reid, Prausnitz and Sherwood for more current information.

I do not think that this book is the one for use in a first course in thermodynamics. For students who have had a basic course in engineering thermodynamics it could be used for a one-semester course in chemical engineering thermodynamics which emphasized the analysis and prediction of phase equilibria.

A. E. MATHER

Department of Chemical Engineering
University of Alberta

The Practicing Scientist's Handbook: A Guide for Physical and Terrestrial Scientists and Engineers by Alfred J. Moses. Van Nostrand Reinhold, 1292 pages, \$52.50, August 1978.

This reference handbook appears to fill a need for a compendium of information about materials. Under one cover, the author has assembled information on a broad spectrum of materials. He commences with data relevant to particle physics, includes the elements, simple organic and inorganic compounds and finally adds chapters that address the properties of alloys, composites and specialized aerospace materials. Presentation of much of this physical, mechanical and chemical data in one volume is quite useful.

The handbook has complete sets of cross-references and bibliographies for each section. These are helpful. Should the reader wish more detailed information, these references are the universally accepted, most complete sources available in a particular subject matter. This follow-up capability gives the handbook value as a day-to-day working source, without leaving it unwieldy.

As in every venture of this type, the handbook has some deficiencies and problems. The great diversity of information included has made cross-indexing and internal cross-referencing extremely difficult. Material has been drawn from many primary sources. Although adequately credited, reproduction is uneven and borders on the illegible, in a few instances. The author's choice of coverage and relative weighting of subject matter is good, but presents great difficulties in arrangement and utility. The publishers have not been as helpful as possible, failing to use their experience in the editorial and format areas, to make the presentation of information smoother.

On balance, this is a new and useful addition to the working reference library. It will be found most convenient on many laboratory bookshelves and individual desks. It is targeted primarily at those who measure properties, employ property data for process design or require information on materials for analytical or structural design purposes. However, the prospective user is warned, that some effort must be made to learn to use the sometimes awkward format and arrangement of this volume.

ROBERT C. AHLERT
Chemical and Biochemical
Engineering
Rutgers, The State University
Piscataway, N.J.

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