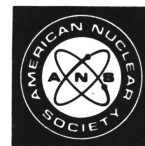


# BOOK REVIEWS

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Selection of books for review is based on the editor's opinions regarding possible reader interest and on the availability of the book to the editor. Occasional selections may include books on topics somewhat peripheral to the subject matter ordinarily considered acceptable.



## **NBS/NRC Steam Tables: Thermodynamic and Transport Properties and Computer Program for Vapor and Liquid States of Water in SI Units**

<i>Authors</i>	Lester Haar, John S. Gallagher, and George S. Kell
<i>Publisher</i>	Hemisphere Publishing Corporation, New York (1984)
<i>Pages</i>	320
<i>Price</i>	\$34.50/\$14.95 (softbound)
<i>Reviewer</i>	Efstathios E. Michaelides

This new book on steam tables emanates from a collaboration of the U.S. National Bureau of Standards and the National Research Council of Canada. The tables extend the range of steam properties to 2000°C and 30 000 bar and have the provisional approval of the International Association for the Properties of Steam for a smaller range.

The new steam tables contain the usual saturation and single-phase properties of water and steam, but extend their range to pressures up to 30 000 bar and temperatures up to 2000°C. One welcome addition is the inclusion of the second virial coefficient,  $B$ , and its derivative with respect to temperature; they are both helpful for many engineering calculations. The tables are supplemented with a list of several isochore curves near the critical region and a complete list of the specific heat capacity and the speed of sound for the vapor and liquid phases.

The transport properties of water and steam, long forgotten in other publications, also find a place in this new book. The tables include listings for the viscosity, thermal conductivity, Prandtl number, and dielectric constant of water substance for pressures in the 1- to 1000-bar range and temperatures from 0 to 800°C.

Several useful diagrams, a Mollier chart for the fundamental equation for the derivation of properties, and a computer program for thermodynamic property calculations are also included in the book.

All in all this new set of tables contains several new features, absent from comparable books. The accuracy of the

tables seems to be quite good and the listings are thorough and complete. This reviewer believes that it is going to be a good addition to the library of practicing engineers and scientists who need a complete set of the thermodynamic properties of water and steam.

*Efstathios E. Michaelides has been at the University of Delaware since 1980 where he now holds the position of associate professor. He studied at Oxford University, England (BA, 1977), and Brown University (MS, 1979, and PhD, 1980). During 1986 he served as acting chairman of the mechanical engineering department at the University of Delaware. His research interests are in the areas of energy conversion, multiphase flow, geothermal energy applications, and particulate flows. He has contributed 65 articles and reports to the scientific and technical literature.*

## **Hazardous Waste Management: In Whose Backyard?**

<i>Author</i>	Michalann Harthill
<i>Publisher</i>	Westview Press, Boulder, Colorado (1984)
<i>Pages</i>	205
<i>Price</i>	\$22.00
<i>Reviewer</i>	Geoffrey G. Eichholz

This book presents a series of papers presented at an American Association for the Advancement of Science symposium in 1981. As the subtitle indicates, the intent of the session was to address regulatory and institutional issues raised by the need to find acceptable sites and acceptable methodologies for disposing of hazardous wastes. Considering the political sensitivity of the subject and the specific subtitle, the authors do not really come to grips with the political realities, though one of the authors discusses public participation in siting and pro- and anti-siting tactics. The issues raised are all familiar to those who have fought similar problems in relation to radioactive waste disposal and this volume