BOOKS

Introduction to Engineering Design, Thomas T. Woodson, McGraw-Hill, New York (1966). 434 pages, $9.95.

There are two ways of teaching engineering design. One method is to give a contemporary design problem to the students and ask them to proceed with its solution, the professor serving as a consultant and source of specialized knowledge. The other method is to study the design procedure and engage the class in going through a consideration of the various stages in design, looking at techniques of design, investigating information sources, studying relationships with economics to engineering, etc. The best design course probably is one which combines that of an intriguing current problem with presentations of material to the students which treats the various components and considerations of design.

Professor Woodson's book is the source of the material which could make an excellent presentation to the students through lectures and reading while they are conducting a design problem. The book is a fine treatment of organization of the design project, estimation and order of magnitude analysis, economics of engineering projects, optimization, computers in design, information sources, etc. A wealth of material useful to students and instructors alike is contained in the book to give them an enlarged view of the various components of the over-all design process.

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Chemical Thermodynamics: A Problems Approach, Norman O. Smith, Reinhold, New York (1967). 278 pages, $8.50.

As the title indicates, this book was written for the student of chemistry and contains a large number of illustrative problems (about 300). Each of the problems is provided with a worked solution. The problems are not difficult and, in the author's words, "are intended to be instructive rather than challenging or subtle." Since the problems form the bulk of the text and are meant to be worked consecutively, the author's approach has the flavor of programmed instruction.

(Continued on page 1017)

(Continued from page 833)

ERRATA

COMMUNICATIONS TO THE EDITOR

The author's approach is effective for mastering the details of thermodynamic calculations. This book is particularly recommended for studying thermodynamics without the benefit of an instructor.

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ERRATA

In "A Theoretical Approach to Nonfoaming Adsorptive Bubble Fractionation" by Robert Lemlich [Vol. 12, No. 4, pp. 802-804 (1966)], in the first paragraph under the heading Theory, the words *rich* and *lean* should be interchanged.

In "Hot-Film Anemometry Measurements of Turbulence in Pipe Flow: Organic Solvents," by G. K. Patterson and J. L. Zakin [Vol. 13, No. 3, pp. 513-519 (1967)], the limits of the integral in Equation (2) should be changed from 0 to r, to r to a.

(Continued from page 834)

In the discussion of chemical reactions in Chapter 4, the author develops the concept of spontaneous ($\Delta G^o < 0$) and forbidden ($\Delta G^o > 0$) reactions. The meaning is that total conversion is either spontaneous or forbidden. Unfortunately it is not emphasized in Chapter 4 that partial conversion is spontaneous regardless of the sign of ΔG^o. Therefore the reader is left with the impression that chemical reactions do not proceed if $\Delta G^o > 0$.

There are less than one dozen typographical errors in this book, quite an achievement considering the large number of detailed examples.