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Book Reviews

“Principles of Thermodynamics”

Myron Kaufman, Marcel Dekker, New York, Basel; 2002, 240 pages, \$85; ISBN 0-8247-0692-7

Principles of Thermodynamics is a typical book meant to accompany a physical chemistry course. The book starts out by describing the models of ideal and real gases and the laws of thermodynamics. A short chapter on statistical mechanics illustrates the links to the microscopic world of atoms and molecules. This is followed by quantitative descriptions of phase- and chemical equilibria including electrochemical reactions and electrochemical cells. Two chapters on the thermodynamics of surfaces and on steady-state systems (linear irreversible thermodynamics) conclude the book. Each chapter ends with questions, problems and notes, thus enabling the reader to check his or her understanding. The required mathematical knowledge is reviewed in the appendices.

The text is very detailed, nevertheless comprehensible and clear. One could greatly recommend the texts of this book; however, the figures still need extensive work. In some cases the lines of the figures could be taken as a demonstration for the Random Walk. They would have been much better if outlined freely by hand. Since thermodynamics is an abstract subject for beginners, good figures are important for understanding. Therefore, this book can be recommended for beginners only, if the figures are replaced by other sources.

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“Essentials of Pathophysiology for Pharmacy”

Martin M. Zdanowicz, CRC Press Pharmacy Education Series; 2003; ISBN 1-58716-036-6

Essentials of Pathophysiology for Pharmacy by Martin M. Zdanowicz provides a clearly written and logically organized overview of basic pathophysiological mechan-

isms, accompanied by commentaries concerning the pharmacotherapy of the respective disease. The book begins with an overview of tissue injury and mechanisms of tissue repair that lays the groundwork for subsequent chapters. Moreover, a basic discussion of the immune system is given early followed by an up-to-date discussion of HIV that includes important information concerning HIV mutation and drug resistance. The following chapters discuss diseases affecting the main organ systems including cardiovascular, respiratory, renal, gastrointestinal, hepatic and endocrine disorders. The book concludes with a comprehensive overview of diabetes mellitus. The presentation of material within the chapters is designed to maximize clarity and facilitate conveyance of key points to the students. The chapters are nicely illustrated with black and white figures and sensibly subtitled. Subsections, bulleted lists, tables and definitions of key terms are included in each chapter along with study objectives that are designed to focus students on important concepts within each chapter. Each chapter includes a rationale for drug therapy section that allows students to correlate information they have learned on selected diseases to the clinical application of drugs. Zdanowicz' writing style and his ability to present complicated systems and relationships will make this book particularly accessible to students, and generally useful to anyone interested in pathophysiological mechanisms. However, readers should not expect this short text to even approach a comprehensive treatment of the wide-ranging subjects discussed (some issues, like the two-page subsection chapter on the inflammatory reaction, are disappointingly superficial). Overall Martin M. Zdanowicz has done a commendable job distilling the essential principles of pathophysiology relevant for pharmacists. It will be a welcome addition to the libraries of students and pharmacists interested in the basic mechanisms of human pathophysiology.

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