BOOKS, ETC.

Chemistry and Physics for Nurse Anesthesia: A Student Centered Approach, by David Schubert, PhD; John Leyba, PhD. 411 pages, $80. New York, NY: Springer Publishing Company, 2009. ISBN: 978-0-8261-1844-8.

Finally, a chemistry and physics textbook that clearly describes and discusses chemistry and physics for nurse anesthetists. *Chemistry and Physics for Nurse Anesthesia: A Student Centered Approach* is an excellent addition to the resources available for anesthesia students and practitioners. The text follows a logical progression from a review of chemistry and physics to more specific nuances of these sciences. Chapters 1-4 address the basics of chemistry and physics with a focus on measurements. Chapters 5-8 clearly and systematically explain the properties and behaviors of liquids and gases, along with the formulas that describe these actions. Electricity and electromagnetic radiation is addressed in Chapters 10 and 13. The biochemistry of organic molecules, acids, bases, and buffers are covered as a general overview in Chapters 9 and 12.

Overall, the text is written in an easy to read, narrative format that is engaging and facilitates understanding by the reader. The chapters have numerous figures and formulas that are well explained and correlate to the text discussion. Each chapter concludes with review questions to guide the reader to better comprehension of complex concepts. Presentation slides for individual chapters are a valuable aid for classroom teaching and are available to qualified instructors through the publisher.

The only shortcoming of this text is the lack of specific application of physics and chemistry to the practice of anesthesia. The book would be improved with clinical applications interspersed throughout the text. Specific examples of clinical applications for chemical or physical phenomena and formulas would enable the anesthetist to better apply these meanings in the practice setting. Incorporation of specific anesthetic drugs and physiological alterations such as acid-base imbalances would be an improvement. A "clinical application" section in each chapter would greatly improve an already excellent text. Despite lacking discussions of specific anesthesia practice application, the textbook is a valuable and recommended text for students and practicing anesthetists.

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