

NMT Bookshelf

HANDBOOK OF CHEMISTRY AND PHYSICS, 55th edition, 1974-1975. Robert C. Weast, ed, Cleveland, Ohio, Chemical Rubber Company Press, 1974, 2216 pp, \$26.95

This book contains a wealth of information pertaining to physics, chemistry, and mathematics that would be useful mostly to physicists in nuclear medicine and other fields. Reflecting the extensive work of numerous contributors, this volume is an excellent reference work and would be a useful addition to the libraries of most nuclear medicine laboratories.

The first chapter dealing with the mathematics necessary to understand chemistry and physics and the second chapter dealing with the elements provide detailed overviews of these topics and are

very informative. Furthermore, the book's overall style of presenting material in charts and tables affords the reader quick and easy access to the information needed.

In general, most nuclear medicine technologists would not have a need for this book. However, it would serve as an excellent reference source for those who might need to consult a book of this kind for information on advanced chemistry, physics, and mathematics.

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NUCLEAR MEDICINE IN VITRO. Benjamin Rothfeld, ed, Philadelphia, J.P. Lippincott Co., 1974, 423 pp, \$29.50.

Heretofore the only literature available on in vitro nuclear medicine procedures came from commercial suppliers. This literature was usually geared to the particular supplier's test, but it adequately filled the void. This textbook provides a noncommercial source of in vitro procedures.

The first four chapters on crystal scintillation counting, liquid scintillation counting, activation analysis, and the in vitro nuclear medicine laboratory deal with the basic principles required to perform in vitro tests.

These chapters are written in a simple, easily understood manner, and complex mathematical concepts are minimal, which should be helpful to the beginner.

Chapter 4, for example, discusses laboratory design and is complete with illustrations explaining routine flow patterns and detailed floor plans. Proper record keeping, factors relating to technique and equipment, choice of reliable equipment, AEC regulations, monitoring, and quality control in the laboratory are stressed. No stone is left unturned in this or any other chapter.

Chapter 5 leads the reader through blood volumes in clinical practice. Although this is an in vivo procedure, we are very fortunate the editor felt it necessary to include this material. The

clinical considerations of blood volume determination are given in a table with excellent explanation in the text. Discussions of blood volume regulation, replacement therapy, and rationale for measuring blood volumes then lead the reader into a discussion of indices of blood volumes. Later in this very informative chapter, measuring blood volume and principles of measurement are discussed. To properly complete this chapter, contraindications and common pitfalls of measuring blood volumes are delineated and fine "points" to remember are given.

The editor has enlisted the help of 35 experts in compiling this up-to-date and comprehensive text of 27 chapters. Other chapters worthy of mention are those on basic principles of competitive radioassay, tumor antigens, Australian antigens, and future pathways. The latter, a look into the future of in vitro tests, was written by the editor and provides the reader with an idea of what can be expected.

This excellent volume will prove useful both as a textbook for nuclear medicine technology students and as a reference book for technologists and physicians. The editor and contributors are to be congratulated for their extremely fine presentation.

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