algorithms could be hotly disputed, and many will need revison in the future to incorporate new techniques, so that they should not be followed blindly.

Unfortunately, the book suffers from sloppy proofreading. The well-chosen references would be significantly more useful if they were verified. Finding "Bosnak" for Bosniak, "Kazan" for Kazam, "hematura" for hematuria, etc., makes one suspect that the page and volume numbers will be similarly garbled. This vitiates the very considerable effort that has gone into preparation of the bibliography.

All of the authors come from the University of Pittsburgh School of Medicine, leading to a "single institution" approach. The orientation is towards a classical "radiology" which may reflect the strengths and weaknesses of the departments involved in elaborating the various sections. It is probable that specialists in nuclear medicine and ultrasonography will find much to object to. As standard a technique as correlation of HCG titers with ultrasound images in the evaluation of possible ectopic pregnancy is completely ignored. Similarly, it is astonishing to find statements such as "nuclear medicine has shown relatively little growth recently" or "ejection fraction determination will probably be replaced by digital (?) NMR or cine-CT in the near future." These suggest either a real limitation in the understanding of "non x-ray" imaging on the part of the authors, or a regrettable institutional bias.

It is to be hoped that a second edition will remedy some of the weaknesses signaled above. There is still much to recommend this book for the clinician in practice encountering an unfamiliar problem or wishing to review recent developments. This handy and inexpensive volume is appropriate and helpful for medical student teaching, and we use it for the third year elective in radiology at Harvard. It should also be invaluable in the emergency room.

ROBERTA L. A. CARROLL
Massachusetts General Hospital
Boston, Massachusetts

RADIATION PROTECTION IN THE RADIOLOGIC AND HEALTH SCIENCES, SECOND EDITION.

M. E. Noz, G. Q. Maguire, Jr., Philadelphia, Lea & Febiger, 1985, softcover, 277 pp, $24.50

Radiation protection training is an important and integral part of all physician, scientist, and technologist training programs in nuclear medicine. This book offers itself as a textbook "... for courses in an academic or training program-...directed primarily toward students preparing for a career as radiologic technologists, medical physicists, or health physicists and toward radiology residents." Its length and depth of coverage are just about right for a one-semester course. There are 12 chapters, four appendices, an excellent glossary, a good index, and questions and references at the end of each chapter.

This book is unusual in that it is one of the first American books on radiation protection which uses SI units consistently throughout. I have been resistant about changing to the SI system for radiation protection purposes, but by the end of the book I found myself reasonably comfortable with grays and sieverts and kerma. The quality of the proofreading and printing is excellent, but the hand-drawn line drawings are occasionally amateurish and, in at least one case, misleading. The figure supporting the discussion of low-level radiation effects models does not actually show the preferred linear-quadratic model accurately. And the diagram of the MIRD phantom is out-of-date. Although the authors state that their focus is ionizing radiation, they should consider adding brief discussions of the radiation protection implications of diagnostic and diathermy ultrasound, radiofrequency radiation (diathermy and NMR), medical lasers, and high intensity optical sources used in dermatology. There also needs to be a discussion of mammography.

All things considered, I recommend this book as a textbook, but not for the broad audience suggested by the authors. Health physicists and medical physicists at the undergraduate level could use it as an introductory text, but there is not sufficient depth for those training at the graduate level. Comparable material is available in other accepted technologist books; although this book is good, I cannot recommend its purchase over and above these others. Finally, it seems well-suited for radiology and nuclear medicine residents.

ANTHONY R. BENEDETTO
University of Texas Medical Branch
Galveston, Texas

A HANDBOOK OF RADIOACTIVITY MEASUREMENTS PROCEDURES, SECOND EDITION.

National Council on Radiation Protection and Measurements, Bethesda, MD 20814, February 1, 1985, 592 pp, $22.00

Anybody who thinks that a committee cannot produce a good book will be confounded to read this manual. It is largely to do with the physics of radioactivity measurements, it covers theoretical and practical aspects of all the common methods of measurement. This book will serve as a reference manual to all needing an authoritative guide to radioactivity measurements and procedures. The book is written concisely, but covers all the principle methods of radioactivity measurement including absolute and indirect methods, techniques for the preparation of standard sources and the assay of radionuclides in environmental, medical and industrial laboratories. It also has two chapters on the statistics of radioactivity measurements. Some of the methods discussed include solid and liquid scintillators, solid state detectors, ion chambers, proportional counters, the measurement of alpha, beta and gamma radiations, and the use of multichannel analyzers and scalars.

The appendix contains an up-to-date compilation of the atomic and nuclear radiations emitted by some 200 radioactive nuclides. Listed in tabular form are recommended values for half-lives, energies, intensities, and equilibrium absorbed-dose constants for each of the emitted radiations. The latter information is needed in order to estimate the absorbed dose from internally administered radionuclides.

The material is understandable by anybody with a bachelors degree in physics or above. It is quite comprehensive and authoritative and I have not yet found any errors. The book would be suitable as a text for instruction of this subject. The print is good, the quality of the paper and the binding is satisfactory, but not as good as one would find on a more expensive book, but this is definitely a bargain at $22.00. The many experts who participated in writing this book are to be congratulated and thanked for providing such an important service to the scientific community.

ROY S. TILBURY
University of Texas
M.D. Anderson Hospital and Tumor Institute
Houston, Texas

Books Received

NCRP Report #81 - Carbon-14 In the Environment. *Bethesda, NCRP Publications, 1985, 108 pp, $12.00*

Myelofibrosis. Pathophysiology and Clinical Management. *S. M. Lewis, Ed. New York, Marcel Dekker, Inc., 1985, 224 pp, $65.00*

Sensitivity and Specificity of Common Scintigraphic Procedures. *M. L. Goris. Chicago, Year Book Medical Publishers, 1985, 127 pp, $29.95*

The Selection and Performance of Radiologic Equipment. *W. R. Hendee, Ed. Baltimore, Williams and Wilkins, 1985, 263 pp, $48.50*

Medical Effects of Ionizing Radiation. *F. A. Mettler, R. D. Moseley. Orlando, Grune & Stratton, 1985, 288 pp, $59.50*

Radiological Physicists. *J. A. del Regato. New York, American Institute of Physics, 1985, 188 pp, $25.00*

Osteology for Radiographers. *C. Shillingford. Boston, Blackwell Scientific Publishers, 1985, 133 pp, $11.50*

Radiation Protection in Hospitals. *R. F. Mould. Boston, Adam Hilger Ltd, 1985, 210 pp, £19.50*

Computed Tomography and Magnetic Resonance Imaging of the Head and the Neck, 2nd Edition. *A. A. Mancuso, W. N. Hanafee. Baltimore, Williams and Wilkins, 1985, 503 pp, $84.75*