NMT Bookshelf

AN INTRODUCTION TO THE PHYSICS OF NUCLEAR MEDICINE
Paul N. Goodwin and Dandamudi V. Rao, Charles C. Thomas, Springfield, IL, 1977, 150 pp.

The authors state that they are attempting to explain the basic principles of radioactivity and radiation detection in an elementary way that would be suitable for physicians, nuclear medicine technologists, or medical students with an elective in nuclear medicine. The subject matter is divided into a dozen chapters: Review of Elementary Mathematics, Structure of Matter and the Nature of Radioactivity, Nuclear Decay Processes, Interaction of Radiation with Matter, Scintillation Detectors, Scanners, Gamma Cameras, Other Imaging Devices, Radionuclides in Medicine, Statistics of Radiation Measurements, Radiation Safety, and Radiation Dosimetry.

The text is written in straightforward language and the authors have kept to their aim of concentrating on the physics pertinent to nuclear medicine. They have bypassed the temptation to introduce exotic exceptions that tend to confuse rather than illuminate. The mathematical level is restrained and appropriate to the material.

The choice and handling of specific topics is generally excellent, although I would have liked to have seen a few pages on neutrons. After each chapter, there are about ten self-study problems with answers in an appendix (*Note:* Chapter 2, problem 6: the answer is C, not B; Chapter 4, problem 1: the answer C is correct but the unit should be cm not mm). The text is remarkably free of typographical errors. Line drawings are used for illustration when needed.

The overall tone and choice of subject matter should make this book quite popular as an introductory text. Most readers will wish to pursue many of the topics in greater detail in their educational careers, but for an initial overview this text is to be recommended.

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