Essentials of Nuclear Medicine Physics and Instrumentation. 3rd Edition

Description:
An excellent introduction to the basic concepts of nuclear medicine physics

This Third Edition of Essentials of Nuclear Medicine Physics and Instrumentation expands the finely developed illustrated review and introductory guide to nuclear medicine physics and instrumentation. Along with simple, progressive, highly illustrated topics, the authors present nuclear medicine–related physics and engineering concepts clearly and concisely. Included in the text are introductory chapters on relevant atomic structure, methods of radionuclide production, and the interaction of radiation with matter. Further, the text discusses the basic function of the components of scintillation and non–scintillation detector systems. An information technology section discusses PACs and DICOM. There is extensive coverage of quality control procedures, followed by updated chapters on radiation safety practices, radiation biology, and management of radiation accident victims.

Clear and concise, this new edition of Essentials of Nuclear Medicine Physics and Instrumentation offers readers:

- Four new chapters
- Updated coverage of CT and hybrid scanning systems: PET/CT and SPECT/CT
- Fresh discussions of the latest technology based on solid state detectors and new scanner designs optimized for dedicated cardiac imaging
- New coverage of PACs and DICOM systems
- Expanded coverage of image reconstruction and processing techniques
- New material on methods of image display

Logically structured and clearly written, this is the book of choice for anyone entering the field of nuclear medicine, including nuclear medicine residents and fellows, cardiac nuclear medicine fellows, and nuclear medicine technology students. It is also a handy quick–reference guide for those already working in the field of nuclear physics.

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