

Physics in nuclear medicine -- 4th. ed
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What is nuclear medicine

Basic atomic and nuclear physics

Modes of radioactive decay

Decay of radioactivity

Isotope production & tracer synthesis

Interaction of radiation with matter

Radiation detectors

Electronic instrumentation for radiation detection systems

Nuclear counting statistics

Pulse height spectrometry

Problems in radiation detection and measurement

Counting systems

The gamma camera : basic principles

Gamma camera performance characteristics

Image quality in nuclear medicine

Tomographic reconstruction in nuclear medicine

Single photon emission computed tomography

Positron emission tomography

Multimodality imaging : SPECT/CT and PET/CT

Data acquisition and digital image processing in nuclear medicine

Tracer kinetic modeling

Internal radiation dosimetry

Radiation safety and health physics.