

Scope of Clinical Radiotherapy Physics; Atoms, Molecules, and Matter; Propagation of Energy by Electromagnetic Waves; Nuclear Transitions and Radioactive Decay; Radioactive Decay Calculations; Collision and Radiation Loss in Charged-Particle Interactions; Photon Interactions; Conventional X-Ray Machines; Equipment for Radioisotopic Teletherapy; Particle Accelerators; Quantification of Radiation Field: Radiation Units and Measurements; Instruments for Radiation Detection; Basic Ratios and Factors for the Dosimetry of External Beams; Beam Dosimetry; Treatment Dose Distribution Planning: Photon Beams; Physical Aspects of Electron Beam Therapy; Physics of the Use of Small Sealed Sources in Brachytherapy; Radiation Safety Standards; Radiation Safety in External-Beam Therapy; Radiation Therapy in Brachytherapy; Appendix A: Electron Mass Stopping Power; Appendix B: Mass Attenuation Coefficients