

Clinical radiotherapy physics – 2nd. Ed.
Jayaraman, Subramania

ISBN 9783540402848

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; Subject Index.