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4.4 Interactions of Neutrons with Matter; 4.5 Neutron Attenuation and Cross-Sections; 4.6 Neutron Decay; Radioactivity Hall of Fame-Part V: for Chapter 5; Chapter 5: Atomic Electron Radiation; 5.1 Introduction; 5.2 Internal-Conversion Electrons; 5.3 Auger Electrons; Radioactivity Hall of Fame-Part VI: for Chapter 6; Chapter 6: Cosmic Radiation; 6.1 Introduction; 6.2 Classification and Properties; 6.3 Showers of the Cosmic Radiation; 6.4 Cosmic Rays Underground; 6.5 Origins of Cosmic Radiation; 6.6 Cosmic Background Radiation; 6.7 Dose from Cosmic Radiation and Other Sources  
Radioactivity Hall of Fame-Part VII: for Chapter 7; Chapter 7: Cherenkov Radiation; 7.1 Introduction; 7.2 Theory and Properties; 7.3 Cherenkov Photons from Gamma-Ray Interactions; 7.4 Particle Identification (PID); 7.5 Applications in Radionuclide Analysis; Radioactivity Hall of Fame-Part VIII: for Chapter 8; Chapter 8: Radionuclide Decay, Mass, and Radioactivity Units; 8.1 Introduction; 8.2 Half-Life; 8.3 General Decay Equations; 8.4 Secular Equilibrium; 8.5 Transient Equilibrium; 8.6 No Equilibrium; 8.7 More Complex Decay Schemes; 8.8 Radioactivity Units and Radionuclide Mass  
Appendix A: Particle Range-Energy Correlations; Appendix B: Periodic Table of the Elements; References; Index

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Sommario/riassunto

Radioactivity: Introduction and Early History provides an introduction to radioactivity from natural and artificial sources on earth and radiation of cosmic origins. This book answers many questions for the layperson, student, teacher, and even practitioner as to the origins, properties, detection and measurement, and applications of radioactivity. Written at a level that most laypersons can appreciate, it includes many calculations that students and teachers may use in class work. Radioactivity: Introduction and Early History also serves as a refresher for experienced practitioners wh

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