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Nota di contenuto	Part I. Introduction to Charged Particles -- 1. Introduction -- 2. Elements of Quantum Scattering Theory -- Part II. Elastic Coulomb Scatter -- 3. Introduction of Part II -- 4. Elastic Coulomb Scatter from an Unscreened Point Charge -- 5. Elastic Coulomb Scatter from Distributed and Screened Charges -- 6. Multiple Elastic Coulomb Scatter -- Part III. Collision Energy Loss -- 7. Introduction to Part III -- 8. Soft Collisions -- 9. Hard Collisions -- 10. Total and Restricted Collision Stopping Powers and Theory of the Mean Energy Expended to Create an Ion Pair -- 11. Mean Excitation Energy -- 12. Higher-Order Corrections in the Collision Stopping Power -- 13. Charged Particle Range -- 14. Collision Energy Loss in Compound Media -- Part IV. Stochastic Collision Energy Loss -- 15. Introduction to Part IV -- 16. Collision Statistics -- 17. The Chapman-Kolmogorov and Bothe-Landau Equations -- 18. Probability Distribution Functions for Collision Energy Loss.
Sommario/riassunto	Medical Radiation Dosimetry: Theory of Charged Particle Collision Energy Loss provides a uniquely required advanced, comprehensive and definitive theoretical description of the physics of charged particle

collision energy loss and the role that it plays in the clinical radiation dosimetry resulting from exposure to ionising radiation. Medical Radiation Dosimetry: Theory of Charged Particle Collision Energy Loss is both an advanced mathematical and physics treatise and an essential reference volume for the medical physics graduate student and the medical radiation physicist working in the field of clinical and research radiation dosimetry. It will assist both audiences in both the understanding of the genesis of the numerical data provided in multiple technical reports and publications, and of the limitations of these data.

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