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Nota di contenuto	Preface; Acknowledgments; CONTENTS; Chapter 1 Introduction to Positron and Positronium Chemistry; 1.1 A new chemistry: positronium chemistry; 1.2 Existing books and articles on positron and positronium chemistry and annihilation; Problems; References; Answers to problems; Chapter 2 Compounds of Positrons and Positronium; 2.1 Introduction; 2.2 Quantum mechanical considerations; 2.2.1 Basic physics of mixed electron-positron systems; 2.2.2 The calculation of annihilation rates; 2.2.3 Quantum mechanical methods; 2.2.3.1 The stochastic variational method (SVM) 2.2.3.2 The quantum Monte Carlo (QMC) method 2.2.3.3 Other methods; 2.3 Current knowledge of bound states; 2.3.1 Polyelectrons; 2.3.2 One-electron atoms; 2.3.3 Two-electron atoms (excluding He); 2.3.4 The nonmetals; 2.3.5 The noble gases; 2.3.6 Molecules; Acknowledgments; References; Chapter 3 Experimental Techniques in Positron Spectroscopy; 3.1 Introduction; 3.2 Positron sources; 3.2.1 Introduction; 3.2.2 Radioactive sources for laboratory experiments; 3.2.3 Positron sources for facility-based beams; 3.2.4 Accelerator-

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Sommario/riassunto

This book provides a comprehensive description of the principles and applications of positron and positronium chemistry. Pedagogical and tutorial in nature, it will be ideal for graduate students and researchers in the area of positron annihilation spectroscopy. The contributing authors are authoritative scientists prominent in the frontiers of research, actively pursuing positron annihilation research on chemical and applied systems. Contents: Introduction to Positron and Positronium Chemistry (Y C Jean et al.); Compounds of Positrons and Positronium (D M Schrader); Experimental Techniques in
