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Nota di contenuto	Progress in Positron Annihilation; Preface/Committees; Table of Contents; I. Theoretical Calculations; Electron and Positron Densities for Mono Vacancy in SiC; Influence of Electron-Electron Correlations and Lattice Effects on Positron-Electron Enhancement Factors; The Distribution of Slowing-Down Times of Positrons Emitted from 22Na and 68Ge\68Ga Isotopes into Metals; A Computational Model for Nano Scale Cavities in the Atomic Structure of Polymer Melt and Comparisons to PALS; Calculation of Gamma Spectra for Positron Annihilation on Molecules Investigation of Resonances in the Scattering of a Heavy 'Positron' by H2 that Involve Vibrationally Excited Quasi-Bound StatesPositron Annihilation Characteristics in Superstrong Magnetic Fields; Similarity of Primary Processes in Tracks of Fast Electrons, Positrons, Muons and in Blobs of Moessbauer Atoms. Common Model of early Chemical Reactions for Radiation, Positron, Muon Chemistry and Moessbauer Spectroscopy; II. Positron Annihilation; Structural Characterisation of Er Implanted, Ge-Rich SiO2 Layers Using Slow Positron Implantation Spectroscopy Defects in Martensitic Stainless Steel 1.4031 (EN) Exposed to Friction as Seen by Positron AnnihilationPoint Defect Study in Fe72Al28 Alloy as a

Function of Thermal Treatment by Positron Lifetime Spectroscopy; Studies on Radiation Defects in Tungsten Induced by W Self-Implantation; Positron Annihilation in Thermally Treated Co-Zr-V Metallic Glasses; Study of the e+ Distribution in a Layered Stack Sample Using Positron Lifetime Spectroscopy; III. Positronium; Localization of Positronium in Polymers
Phase Transitions in Polymers Containing Long Self-Assembled CH2 Sequences in the Side Chain: A Positron Lifetime StudyPositron Annihilation Studies in Gamma Irradiated Polyesters; Effect of Dynamic Vulcanization on the Structure and Properties of Polypropylene/Rubber Mixtures Studied by Positron Annihilation and Thermostimulated Luminescence Techniques; The Effect of Impact Pressure on Positron Lifetime in Ultra High Molecular Weight Polyethylene (PE-UHMW) Chirulen®1120; Depth of Electron Traps in N-Alkanes; Positronium in Normal Alkanes. Selected Problems
Preliminary Positron Lifetime Results on Free Volumes in CyclodextrinsOrtho-Positronium Reactions in Water Studied by Positron Annihilation Age-Momentum Correlation; Incorporation of the Magnetic Quenching Effect into the Blob Model of Ps Formation. Finite Sized Ps in a Potential Well; Positron Annihilation in Undercooled Water and Ice; Water in Montmorillonites; Influence of Atmospheric Gases Present in the Pores of MCM-41 on Lifetime of Ortho-Positronium; IV. Experimental Methods; Precise Measurement of Hyperfine Splitting of Positronium Using the Zeeman Effect
New Experiment for the First Direct Measurement of Positronium Hyperfine Splitting with Sub-THz Light

Sommario/riassunto

The aim of this special collection is to present recent progress made, and reflect current ideas, in research fields where positron and positronium are involved. The contents cover a wide range of positron-related research topics; including both fundamental (theoretical calculations, radiation chemistry, hyperfine interactions, positronium physics and chemistry) and applied (metal, polymer, thin film and other materials, development of experimental techniques) aspects. This will be of especial interest to anyone planning to use such techniques.
Review from Book News Inc.: This collection of th