Contents

Part I	Exotic Atom Formation and Experimental Technique	es
	Effects in Atomic Capture of Negative Muons neuwly (With 6 Figures)	3
and Comp	ounds artmann (With 6 Figures)	13
From Basi	eduction of Exotic Atoms: c Facts to Advanced Techniques imons, E. Morenzoni, and F. Kottmann (With 15 Figures) .	33
and the Ne	and μ^- Beam Production ext Generation of Muon Science examine (With 4 Figures)	55
Part II	Condensed Matter Studies with Negative Muons	
	cles in Solids $-\mu^-$ in Semiconductors er (With 7 Figures)	63
	Matter Studies with Polarized Bound Negative Muons amine (With 5 Figures)	73
Part III	Low Energy Fusion	
	terium and Deuterium-Muon Systems Ashcroft (With 4 Figures)	85
	cepts of Muon Catalyzed Fusion nzi (With 7 Figures)	99
and Muon	and μ-Molecular Processes in Hydrogen Isotope Mixtures Catalyzed Fusion erstein (With 10 Figures)	113
-	s in Low Energy Fusion?	113
	profolini and A. Foglio Para (With 5 Figures)	129
		VII



Part IV	Charge Transfer: Theory and Phenomena	
-	change Processes	151
By W. Cza	Deexcitation of Muonic Hydrogen plinski, A. Gula, A. Kravtsov, A. Mikhailov, nikov, and N. Popov (With 2 Figures)	159
	nsfer from Muonic Hydrogen to Other Elements t-Guillarmod and H. Schneuwly (With 4 Figures)	167
	d Transfer of Pions in Hydrogenous Materials rmstrong (With 9 Figures)	175
Part V	Condensed Matter Studies with Positive Muons	
	uons as Probes in High- T_c Superconductors ler (With 11 Figures)	191
Muonium and Hydrogen Defect Centres in Solids By S.F.J. Cox (With 12 Figures)		213
Muonium Substituted Molecules By S.F.J. Cox (With 14 Figures)		229
	Order and Fluctuations as Detected by Positive Muons ci (With 8 Figures)	245
	aperconductors: A Background for μ SR Measurements ough (With 6 Figures)	259
in the Mixe	ersus Muon Measurements ed State of Superconductors organ (With 7 Figures)	285
Part VI	Conclusions	
	ms in Condensed Matter: Conclusions	297
Index of C	Contributors	307