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Sommario/riassunto

"The phenomenon of spin-crossover has a large impact on the physical properties of a solid material, including its colour, magnetic moment, and electrical resistance. Some materials also show a structural phase change during the transition. Several practical applications of spin-crossover materials have been demonstrated including display and memory devices, electrical and electroluminescent devices, and MRI contrast agents. Switchable liquid crystals, nanoparticles, and thin films of spin-crossover materials have also been achieved. Spin-Crossover Materials: Properties and Applications presents a comprehensive survey of recent developments in spin-crossover research, highlighting the multidisciplinary nature of this rapidly expanding field. Following an introductory chapter which describes the spin-crossover phenomenon and historical development of the field, the book goes on to cover a wide range of topics including Spin-crossover in mononuclear, polynuclear and polymeric complexes Structure: function relationships in molecular spin-crossover materials Charge-transfer-induced spin-transitions Reversible spin-pairing in crystalline organic radicals Spin-state switching in solution Spin-crossover compounds in multifunctional switchable materials and nanotechnology Physical and theoretical methods for studying spin-crossover materials Spin-Crossover Materials: Properties and Applications is a valuable resource

for academic researchers working in the field of spin-crossover materials and topics related to crystal engineering, solid state chemistry and physics, and molecular materials. Postgraduate students will also find this book useful as a comprehensive introduction to the field"--
