

1. Record Nr.	UNINA9910826795203321
Titolo	Spin-crossover materials : properties and applications // edited by Malcolm A. Halcrow
Pubbl/distr/stampa	Chichester, : J. Wiley and Sons, Inc., 2013
ISBN	1-118-51930-2 1-299-18864-8 1-118-51932-9 1-118-51931-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (574 p.)
Classificazione	SCI013030
Altri autori (Persone)	HalcrowMalcolm A
Disciplina	621.381
Soggetti	Spintronics - Materials Nanostructured materials - Electric properties Nanostructured materials - Magnetic properties Electron paramagnetic resonance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: List of Contributors xv Preface xvii 1 The Development of Spin-Crossover Research 1 Keith S. Murray 1.1 Introduction 1 1.2 Discrete Clusters of SCO Compounds 4 1.3 1D Chains of FeII SCO Materials 22 1.4 1D Chains of FeIII SCO Materials 28 1.5 2D Sheets of FeII SCO Materials 29 1.6 3D Porous SCO Materials 30 1.7 Some Recent Developments in Mononuclear SCO FeII, FeIII and Coll Compounds 33 1.8 Multifunctional/Hybrid SCO Materials 37 1.9 Developments in Instrumental Methods in Spin-Crossover Measurements 40 1.10 Applications of Molecular Spin-Crossover Compounds 41 1.11 Summary 42 2 Novel Mononuclear Spin-Crossover Complexes 55 Birgit Weber 2.1 Introduction and General Considerations 55 2.2 Novel Coordination Numbers (CN), Coordination Geometries and Metal Centres 57 2.3 Iron Complexes with Novel Ligand Donor Atoms and New Ligand Systems 65 2.4 Other Examples 70 2.5 Conclusion and Outlook 72 3 Spin-Crossover in Discrete Polynuclear Complexes 77 Juan Olguin and Sally Brooker 3.1 Introduction 77 3.2 Dinuclear Iron(II) Complexes 79 3.3 Higher

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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"--
