

Contents

Preface	Vii
Contributors	ix

FUNDAMENTAL FEATURES OF CMR MANGANITES

1	Fundamental Features of Colossal Magnetoresistive Manganese Oxides <i>Y. Tokura</i>	1
2	Theory of CMR Manganites <i>A. J. Millis</i>	53

SPIN DYNAMICS AND ELECTRONIC STRUCTURES

3	Review of Spin Dynamics and Orbital Ordering <i>Y. Endoh</i>	87
4	Electronic, Magnetic and Structural Properties of Perovskite Manganites <i>K. Terakura, I. V. Solovyev and H. Sawada</i>	119
5	Direct Electronic Structure Measurements of the Colossal Magnetoresistive Oxides <i>D.S. Dessau and Z.-X. Shen</i>	149

MATERIALS SYSTEMATICS AND LATTICE EFFECTS

6	Structural Response to Orbital, Spin, and Charge Ordering in Colossal Magnetoresistive Materials <i>J.F. Mitchell, D.N. Argyriou and J.D. Jorgensen</i>	187
---	--	-----

7	Ferromagnetism vs. Charge/Orbital Ordering in Mixed-Went Manganites <i>S.-W Cheong and H. Y Hwang</i>	237
8	Metal-Insulator Phenomena Relevant to Charge/Orbital Ordering in Perovskite-Type Manganese Oxides <i>Y Tomioka and Y Tokura</i>	281
TUNNELLING MAGNETORESISTANCE		
9	Spin-Polarized Tunnelling Magnetoresistance in Half-Metallic Oxides <i>H. Y Hwang and S.-W Cheong</i>	307
10	Manganate Trilayer Junctions: Spin-Dependent Transport and Low-Field Magnetoresistance <i>J.Z. Sun</i>	331
	Index	355