

Contents

CONTRIBUTORS TO VOLUME 41	vii
PREFACE	ix

Theory of Heavy Fermion Systems

PETER FULDE, JOACHIM KELLER, AND GERTRUD ZWICKNAGL

I. Introduction	2
II. Formation of the Singlet State	7
III. Quasiparticle Bands	22
IV. Quasiparticle-Phonon Interactions	40
V. Quasiparticle Interactions and Fermi Liquid Description	63
VI. Microscopic Theories	71
VII. Superconductivity	103
Appendix A: Molecular Model for Strongly Correlated Electrons	144
Appendix B: Parametrization of the Model Hamiltonian	147

The Theory and Application of Axial Ising Models

JULIA YEOMANS

I. Theory	151
II. Experimental Applications	180

Excitations in Incommensurate Crystal Phases

R. CURRAT AND T. JANSSEN

I. Introduction	202
II. Landau Theory of Modulated Systems	211
III. Supersymmetry and Higher-Dimensional Space Groups	225
IV. Microscopic Models	236
V. Long-Wavelength Excitations in Composite Systems	260
VI. Experimental Results	264
VII. Concluding Remarks	301

AUTHOR INDEX	303
SUBJECT INDEX	313