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Nota di contenuto	Intro -- MAGNETIC PROPERTIES OF SOLIDS -- CONTENTS -- PREFACE -- NON-EQUILIBRIUM MAGNETISM OF SINGLE-DOMAIN PARTICLES FOR CHARACTERIZATION OF MAGNETIC NANOMATERIALS -- Abstract -- 1. Introduction -- 1.1. Real Magnetic Nanoparticles -- 1.2. Basic Properties of Idealized Stoner-Wohlfarth Particles -- 1.3. Néel's Relaxation Approach -- 2. The Stoner-Wohlfarth Model Extended within Néel's Relaxation -- 2.1. The Extended SW Model: Hysteresis in a Periodic External Magnetic Field -- 2.2. Temperature Demagnetization Curves for Different Cooling Regimes -- 2.3. High-Temperature Magnetization Limit in the Extended SW Model -- 3. Multilevel Model for Stochastic Relaxation of Particle's Uniform Magnetization -- 3.1. Constant-Energy Magnetization Trajectories as Stochastic States -- 3.2. Non-Langevin High-Temperature Magnetization in the Slow Diffusion Limit -- 3.3. Equilibrium Magnetization within an Effective Inclusion of Diffusion -- 4. Relaxation Mössbauer Spectra of Magnetic Nanoparticles -- 4.1. Mössbauer Spectra of Nanoparticles and Hyperfine Field Distribution -- 4.2. Two-Level Relaxation Model -- 4.3. Generalized Two-Level Relaxation Model -- 4.4. Mössbauer Spectra within Precession of the Hyperfine Field -- 4.5. Mössbauer Spectra of Nanoparticles within Continuous Diffusion and Precession of Uniform Magnetization -- 4.6. Mössbauer Spectra of Nanoparticles in a Weak Magnetic Field -- 5. Mössbauer Spectra under Radiofrequency Magnetic Field Excitation -- 5.1. Mössbauer Spectra under Rf Field Excitation within the Stoner-Wohlfarth Model -- 5.2. Relaxation Mössbauer Spectra under Rf Field Excitation -- 5.3. Mössbauer Spectra under Rf

Field Excitation within the Extended SWModel -- 5.4. Relaxation-Stimulated Resonances in Mössbauer Spectra under Rf FieldExcitation -- 6. Conclusion -- Acknowledgments -- References.

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Sommario/riassunto

Magnetism is one of the phenomena by which materials exert attractive or repulsive forces on other materials. This book presents a broad range of topics in this growing field, including their use as magnetic agents, receptor particles for microwaves, and more.
