

1. Record Nr.	UNINA9910811264703321
Titolo	Magnetism of surfaces, interfaces, and nanoscale materials . Volume 5 // edited by Robert E. Camley, Zbigniew Celinski, Robert L. Stamps
Pubbl/distr/stampa	Amsterdam, Netherlands : , : Elsevier, , 2016 ©2016
ISBN	0-444-62639-5
Descrizione fisica	1 online resource (478 p.)
Collana	Handbook of Surface Science ; ; Volume 5
Disciplina	621.340287
Soggetti	Magnetic materials - Testing Thin films - Surfaces Interfaces (Physical sciences)
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	""Front Cover""; ""Magnetism of Surfaces, Interfaces, and Nanoscale Materials""; ""Copyright""; ""Contents""; ""Contributors""; ""Preface""; ""Chapter 1: Growth and Characterization of Magnetic Thin Film and Nanostructures""; ""1. Introduction""; ""2. Thin-Film Growth""; ""2.1. Thermal and Electron Beam Evaporation""; ""2.2. Sputter Deposition""; ""2.2.1. DC Sputter Deposition""; ""2.2.2. RF Sputter Deposition""; ""2.2.3. Magnetron Sputter Deposition""; ""3. Characterization Techniques""; ""3.1. Surface Characterization""; ""3.1.1. Atomic Force Microscopy""; ""3.1.2. Magnetic Force Microscopy""; ""3.2. Static Magnetic Characterization""; ""3.2.1. MOKE Spectroscopy""; ""3.2.2. Vibrating Sample Magnetometry""; ""3.3. Dynamic Magnetic Characterization""; ""3.3.1. FMR Spectroscopy""; ""3.3.2. BLS Spectroscopy""; ""4. Magnetic Nanostructures""; ""4.1. Lithography""; ""4.2. Pattern Transfer""; ""4.3. Practical Examples""; ""4.3.1. Planar Magnetic Nanostructures""; ""4.3.2. Thickness-Modulated Magnetic Nanostructures""; ""4.3.3. Bicomponent Magnetic Nanostructures""; ""5. Conclusion""; ""Acknowledgments""; ""References"" ""Chapter 2: Element-Specific Probes of Magnetism""; ""1. Introduction""; ""2. Fundamental Aspects of Optical Excitation""; ""2.1. Electronic States in Solids""; ""2.2. Spectroscopy of Core States""; ""2.3. X-Ray

Photoemission Spectroscopy""; ""2.4. X-Ray Absorption Spectroscopy""; ""2.5. X-Ray Reflection Spectroscopy""; ""3. Spin-Sensitive Photoemission""; ""3.1. Core-Level Photoemission from Ferromagnets""; ""3.1.1. Spin Polarimeter Schemes""; ""3.1.2. 3s XPS""; ""3.1.3. 2p XPS""; ""3.2. Magnetic Dichroism in Photoemission""; ""3.2.1. Magnetic Circular Dichroism in Photoemission"" ""3.2.2. Role of Angular Selection in Photoemission"" ""4. Magnetic Dichroism in X-Ray Absorption""; ""4.1. Magnetic X-Ray Circular Dichroism""; ""4.2. Magnetic X-Ray Linear Dichroism""; ""4.3. Hybrid Systems""; ""5. Magnetic Resonant X-Ray Scattering""; ""5.1. Basic Aspects""; ""5.2. Complex Layered Structures""; ""5.3. Antiferromagnets""; ""6. Addressing Picosecond Magnetization Dynamics""; ""7. Ultrafast Demagnetization Dynamics""; ""8. Summary and Conclusions""; ""Acknowledgments""; ""References""; ""Chapter 3: Magnetization Dynamics""; ""1. Introduction""; ""2. Analytic Results"" ""2.1. Infinitely Extended Flat Plate: In-Plane Field"" ""2.2. Spin Waves Propagating Perpendicular to the Surface, Conducting Films""; ""2.3. Surface Modes for Spin Waves Propagating Parallel to the Film Surface""; ""2.4. Infinitely Extended Flat Plate-Perpendicular-to-Plane Magnetization""; ""2.5. Nanostructures""; ""2.6. Antiferromagnets""; ""3. Examples of Experimental Characterization of Ferromagnetic Samples""; ""4. FMR Techniques""; ""4.1. Magnetic Damping""; ""4.2. Broadband FMR-Frequency Swept""; ""4.3. Broadband FMR-Field Swept""; ""4.3.1. Multimode Cavity Configuration"" ""4.3.2. Coplanar Waveguide Configuration""
