1. Record Nr. UNINA9910438108403321

Titolo	Magnetic Nanostructures : Spin Dynamics and Spin Transport / / edited by Hartmut Zabel, Michael Farle
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	3-642-32042-2
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (XVI, 268 p.)
Collana	Springer Tracts in Modern Physics, , 1615-0430 ; ; 246
Altri autori (Persone)	ZabelH <1946-> (Hartmut) FarleM (Michael)
Disciplina	538
Soggetti	Magnetism Nanotechnology Spintronics Condensed matter Condensed Matter Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	The Influence of Magnetic Anisotropy on Current-Induced Spindynamics -- Spin Dynamics in the Time and Frequency Domain -- Spin-Polarized Electrons in the Superconductor/Ferromagnet Hybrid Structures.- Ferromagnetic Heusler Alloy thin films: Electronic Properties and Magnetic Moment Formation -- Multiferroic and Magnetoelectric Materials -- Competing Interactions in Patterned and Self-Assembled Magnetic Nanostructures -- Quantum Dot Spintronics -- Fundamentals and Applications.
Sommario/riassunto	Nanomagnetism and spintronics is a rapidly expanding and increasingly important field of research with many applications already on the market and many more to be expected in the near future. This field started in the mid-1980s with the discovery of the GMR effect, recently awarded with the Nobel prize to Albert Fert and Peter Grünberg. The present volume covers the most important and most timely aspects of magnetic heterostructures, including spin torque effects, spin injection, spin transport, spin fluctuations, proximity effects, and electrical control of spin valves. The chapters are written by

internationally recognized experts in their respective fields and provide an overview of the latest status.