

1. Record Nr.	UNINA9910786397103321
Titolo	Ferroics and multiferroics : special topic volume with invited peer reviewed papers only // edited by Hardev Singh Virk and Wolfgang Kleemann
Pubbl/distr/stampa	Zurich : , : Trans Tech Publications, , [2012] ©2012
ISBN	3-03813-845-2
Descrizione fisica	1 online resource (271 p.)
Collana	Solid state phenomena, , 1662-9787 ; ; volume 189
Altri autori (Persone)	WirakaHaradewa Singha <1942-> KleemannWolfgang
Disciplina	620.17
Soggetti	Ferrites (Magnetic materials) Ferroelectricity Ferromagnetic materials Spintronics
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 indexes.
Nota di contenuto	Ferroics and Multiferroics; Editors Note; Table of Contents; Multiferroic Memory: A Disruptive Technology or Future Technology?; Combining Magnetism and Ferroelectricity towards Multiferroicity; Disordered Multiferroics; Intrinsic Free Electrons/Holes at Polarization Discontinuities and their Implications for Basics of Ferroelectricity and its Origin; Molecular Spintronics; Electromechanical Resonance in Magnetolectric Composites: Direct and Inverse Effect; Recent Applications of Landau-Ginzburg Theory to Ferroelectric Superlattices: A Review Theoretical Study on the Phase Transition and the H/D Isotope Effect of Squaric Acid Fabrication and Study of Hot Pressed Co _{0.6} Zn _{0.4} Fe ₂ O ₄ -PVDF PbTi _{0.7} Zr _{0.3} O ₃ and Co _{0.6} Zn _{0.4} Fe ₂ O ₄ -PVDF-BaTi _{0.7} Zr _{0.3} O ₃ Multiferroic Composite Films; Ferromagnetic Shape Memory Heusler Alloys; Y-Type Hexaferrites: Structural, Dielectric and Magnetic Properties; Dielectric Relaxation Phenomena in some Lead and Non-Lead Based Ferroelectric Relaxor Materials: Recent Advances; Keywords Index; Authors Index

Sommario/riassunto

Multiferroics: that is, materials which simultaneously exhibit both ferromagnetism and ferroelectricity - and also often ferroelasticity - now attract considerable attention because of the interesting physics involved and their promise for important practical applications. Typical multiferroics belong to the perovskite group of transition metal oxides, and include rare-earth manganites and ferrites. Several new multiferroic systems have been developed, during recent years, which exhibit very strong coupling between the ferroelectric and magnetic degrees of freedom. The present volume comprises
