Record Nr. UNINA9910790312603321 **Titolo** Advances in magnetic shape memory materials: special topic volume with invited peer reviewed papers only / / edited by V. A. Chernenko Pubbl/distr/stampa Durnten-Zurich, Switzerland : ; Enfield, New Hampshire : . : Trans Tech Publications, , [2011] ©2011 **ISBN** 3-03813-467-8 Descrizione fisica 1 online resource (233 p.) Collana Materials science forum, , 0255-5476; ; volume 684 Altri autori (Persone) ChernenkoV. A Disciplina 620.1/6 Soggetti Shape memory alloys Ferromagnetic materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali ISBN from publisher's website. "Special topic volume with invited peer reviewed papers only." Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto Advances in Magnetic Shape Memory Materials; Preface; Table of Contents; Composition-Dependent Basics of Smart Heusler Materials from First- Principles Calculations; Magnetic Anisotropy of Ferromagnetic Martensites; Entropy Changes in Ferromagnetic Shape Memory Alloys; Stress-Temperature Phase Diagram of Ni2MnGa and Structural Relations between its Constituent Phases; Neutron Diffraction Studies of Magnetic Shape Memory Alloys; Influence of Long-Range Atomic Order on the Structural and Magnetic Properties of Ni-Mn-Ga Ferromagnetic Shape Memory Allovs Crystal Structures of Modulated Martensitic Phases of FSM Heusler AlloysMagnetic Microstructure Analysis of Ferromagnetic Shape Memory Alloys and Related Compounds: Polycrystalline Ni-Mn-Ga as a Potential Material for Magnetically Driven Actuators; Metamagnetic Shape Memory Effect and Magnetic Properties of Ni-Mn Based Heusler Allovs: Reverse Magnetostructural Transitions by Co and In Doping NiMnGa Alloys: Structural, Magnetic, and Magnetoelastic Properties; Magnetic Phase Diagram of the Ferromagnetic Shape Memory Alloys Ni2MnGa1-xCux Effects of Surface Pinning, Locking and Adaption of Twins on the

Performance of Magnetic Shape-Memory AlloysLong-Term Cyclic

Sommario/riassunto

Loading of 10M Ni-Mn-Ga Alloys; Surface Study of Ni2MnGa(100); Keywords Index; Authors Index

This second Special Topic edition follows the success of the first one: edited and published by TTP in 2008. It is intended to communicate the latest progress and research advances made in the theory, research and development of MSMMs. It comprises a collection of fifteen invited peer-reviewed papers; each detailing a particular aspect of fundamental and/or practical investigations of MSMMs and related phenomena. The comprehensive overview provided by these contributions strikingly reflects the diverse facets of this materials science field. The papers show how research is continuing to evolve