1. Record Nr. UNINA9910300380703321

Titolo	Advanced Materials : Physics, Mechanics and Applications / / edited by Shun-Hsyung Chang, Ivan A. Parinov, Vitaly Yu. Topolov
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-03749-8
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (378 p.)
Collana	Springer Proceedings in Physics, , 1867-4941 ; ; 152
Disciplina	620.11
Soggetti	Optical materials Condensed matter Mathematical physics Ceramic materials Optical Materials Condensed Matter Physics Theoretical, Mathematical and Computational Physics Ceramics
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 at the end of each chapters and index.
Nota di contenuto	Processing Techniques of Advanced Materials -- Physics of Advanced Materials -- Mechanics of Advanced Materials -- Applications of Advanced Materials.
Sommario/riassunto	Advanced materials are the basis of modern science and technology. This proceedings volume presents a broad spectrum of studies of novel materials covering their processing techniques, physics, mechanics, and applications. The book is concentrated on nanostructures, ferroelectric crystals, materials and composites, materials for solar cells and also polymeric composites. Nanotechnology approaches, modern piezoelectric techniques and also latest achievements in materials science, condensed matter physics, mechanics of deformable solids and numerical methods are presented. Great attention is devoted to novel devices with high accuracy, longevity and extended possibilities to work in wide temperature and pressure ranges, aggressive media

etc. The characteristics of materials and composites with improved properties opening new possibilities of various physical processes, in particular transmission and receipt of signals under water, are described.