

1. Record Nr.	UNINA9910254611803321
Titolo	Advanced Materials : Manufacturing, Physics, Mechanics and Applications // edited by Ivan A. Parinov, Shun-Hsyung Chang, Vitaly Yu. Topolov
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-26324-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (702 p.)
Collana	Springer Proceedings in Physics, , 1867-4941 ; ; 175
Disciplina	620.11
Soggetti	Optical materials Semiconductors Microtechnology Microelectromechanical systems Nanotechnology Optical Materials Microsystems and MEMS
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	This proceedings volume presents selected and peer reviewed 50 reports of the 2015 International Conference on "Physics and Mechanics of New Materials and Their Applications" (Azov, Russia, 19-22 May, 2015), devoted to 100th Anniversary of the Southern Federal University, Russia. The book presents processing techniques, physics, mechanics, and applications of advanced materials. The book is concentrated on some nanostructures, ferroelectric crystals, materials and composites and other materials with specific properties. In this book are presented nanotechnology approaches, modern piezoelectric techniques, physical and mechanical studies of the structure-sensitive properties of the materials. A wide spectrum of mathematical and

numerical methods is applied to the solution of different technological, mechanical and physical problems for applications. Great attention is devoted to novel devices with high accuracy, longevity and extended possibilities to work in a large scale of temperatures and pressure ranges, aggressive media, etc. The characteristics of materials and composites with improved properties is shown, and new possibilities in studying of various physico-mechanical processes and phenomena are demonstrated.
