1. Record Nr. UNINA9910337928003321

Autore	Khanbareh Hamideh
Titolo	Piezo-Particulate Composites : Manufacturing, Properties, Applications / / by Hamideh Khanbareh, Vitaly Yu. Topolov, Christopher R. Bowen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-19204-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (177 pages)
Collana	Springer Series in Materials Science, , 0933-033X ; ; 283
Disciplina	666 620.14
Soggetti	Ceramics Glass Composite materials Magnetism Magnetic materials Optical materials Electronics - Materials Microwaves Optical engineering Ceramics, Glass, Composites, Natural Materials Magnetism, Magnetic Materials Optical and Electronic Materials Microwaves, RF and Optical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Piezo-active Composites: Classification and Effective Physical Properties -- Aspects of Composite Manufacturing -- Experimental Studies on Effective Properties and Related Parameters of Piezo-particulate Composites -- Modelling of the Composite Structure Formation During Dielectrophoresis -- Prediction of Effective Properties of Composites Based on Ferroelectric Ceramics -- From Microgeometry to Improved Properties of Piezo-particulate Composites.
Sommario/riassunto	This book provides an overview of the current state of the art in novel

piezo-composites based on ferroelectrics. Covering aspects ranging from theoretical materials simulation and manufacturing and characterization methods, to the application and performance of these materials, it focuses on the optimization of the material parameters. Presenting the latest findings on modern composites and highlighting the applications of piezoelectric materials for sensors, transducers and hydro-acoustics, the book addresses an important gap in the physics of active dielectrics and materials science and describes new trends in the research on ferroelectric composites.