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Soggetti	Ceramics Glass Composites (Materials) Composite materials Materials science Spectroscopy Microscopy Ceramics, Glass, Composites, Natural Materials Characterization and Evaluation of Materials Spectroscopy and Microscopy
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Theoretical -- Literature Review: Piezoceramics for Actuator Applications -- Experimental Procedure -- Results and Discussions.
Sommario/riassunto	This book addresses and analyzes the mechanisms responsible for functionality of two technologically relevant materials, giving emphasis on the relationship between structural transitions and electromechanical properties. The author investigates the atomic crystal structure and microstructure by means of thermal analysis, as well as diffraction and microscopy techniques. Electric field-, temperature- and frequency-dependent electromechanical properties are also described. Apart from this correlation between structure and properties, characterization was also performed to bridge between

basic research and optimization of application-oriented parameters required for technological implementation. The author proposes guidelines to the reader in order to engineer functional properties in other piezoelectric systems, as well as in other similar functional materials with the perovskite structure.
