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Nota di contenuto	From the Contents: Ferroics -- The definition and classification of ferroics -- The main peculiarities of nanoferroics properties -- Physical factors defining the nanoferroics properties -- Theoretical description of primary nanoferroics. Comparison of the theory with experiment -- Surface tension contribution to the properties of nanoferroics -- True nanoferroics with properties absent in the bulk materials -- Synthesis and fabrication of nanoferroics -- Classification of the methods of nanoferroics fabrication.
Sommario/riassunto	This book covers the physical properties of nanosized ferroics, also called nanoferroics. Nanoferroics are an important class of ceramic materials that substitute conventional ceramic ferroics in modern electronic devices. They include ferroelectric, ferroelastic, magnetic and multiferroic nanostructured materials. The phase transitions and properties of these nanostructured ferroics are strongly affected by the geometric confinement originating from surfaces and interfaces. As a consequence, these materials exhibit a behavior different from the corresponding bulk crystalline, ceramic and powder ferroics. This monograph offers comprehensive coverage of size- and shape-dependent effects at the nanoscale; the specific properties that these materials have been shown to exhibit; the theoretical approaches that have been successful in describing the size-dependent effects observed experimentally; and the technological aspects of many chemical and physico-chemical nanofabrication methods relevant to

making nanoferroic materials and composites. The book will be of interest to an audience of condensed matter physicists, material scientists and engineers, working on ferroic nanostructured materials, their fundamentals, fabrication and device applications.