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Titolo	Ferroelectric crystals for photonic applications : including nanoscale fabrication and characterization techniques / / Pietro Ferraro, Simonetta Grilli, Paolo De Natale, editors
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Part I Fabrication -- Micro-structuring and ferroelectric domain engineering of single crystal lithium Niobate -- Fabrication and characterization of self-assembled ferroelectric linear and nonlinear photonic crystals: GaN and LiNbO3 -- Part II Characterization -- Light aided domain patterning and rare earth emission based imaging of ferroelectric domains -- Part III Applications -- Nonlinear Interactions in Periodic and Quasi-Periodic Nonlinear Photonic Crystals -- Domain-engineered ferroelectric crystals for nonlinear and quantum optics.
Sommario/riassunto	This book deals with the latest achievements in the field of ferroelectric domain engineering and characterization at micro- and nano-scale dimensions and periods. The book collects the results obtained in the last years by world scientific leaders in the field, thus providing a valid and unique overview of the state-of-the-art and also a view to future applications of those engineered and used materials in the field of photonics. The second edition covers the major aspects of ferroelectric domain engineering and combines basic research and latest updated applications such as challenging results by introducing either new as well as extended chapters on Photonics Crystals based on Lithiunm Niobate and Lithium Tantalate crystals; generation, visualization and controlling of THz radiation; latest achievements on Optical Parametric Oscillators for application in precise spectroscopy. Furthermore recent

advancements in characterization by probe scanning microscopy and optical methods with device and technological orientation. A state-of-the-art report on periodically poled processes and their characterization methods are provided on different materials (LiNbO3, KTP) furnishing update research on ferroelectric crystal by extending materials research and applications.