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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	Advanced materials are the basis of modern science and technology. This proceedings volume presents a broad spectrum of studies of novel materials covering their processing techniques, physics, mechanics, and applications. The book is concentrated on nanostructures, ferroelectric crystals, materials and composites, materials for solar cells and also polymeric composites. Nanotechnology approaches, modern piezoelectric techniques and also latest achievements in materials science, condensed matter physics, mechanics of deformable solids and numerical methods are presented. Great attention is devoted to novel devices with high accuracy, longevity and extended possibilities to work in wide temperature and pressure ranges, aggressive media

etc. The characteristics of materials and composites with improved properties opening new possibilities of various physical processes, in particular transmission and receipt of signals under water, are described.
