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Nota di contenuto	Front matter -- Preface -- Contents -- Chapter 1. Non-uniform Actuations of Plates and Shells with Piezoelectric and Photostrictive Skew-quad Actuator Designs / Jiang, Jing / Yue, HongHao / Deng, ZongQuan / Tzou, HornSen -- Chapter 2. Structural Theories of Multiferroic Plates and Shells / Zhang, ChunLi / Chen, WeiQiu -- Chapter 3. Piezoelectric Power/Energy Harvesters / Hu, YuanTai / Xue, Huan / Hu, HongPing -- Chapter 4. A Two-dimensional Analysis of Surface Acoustic Waves in Finite Piezoelectric Plates / Wang, Ji / Wu, RongXing / Lin, JinBo / Pan, QiaoQiao / Du, JianKe -- Chapter 5. Wave Characteristics in the Functionally Graded Piezoelectric Waveguides: Legendre Polynomial Approach / Yu, JianGong -- Chapter 6. Radial Vibration Analysis of Layered Piezoelectric Cylindrical and Spherical Structures as Sensors and Actuators / Wang, HuiMing -- Chapter 7. One Type of Transverse Surface Waves in Piezoelectric Layered Solids for Electro-acoustic Devices / Qian, Zheng-Hua / Jin, Feng -- Chapter 8. Theoretical Investigation of Force-frequency and Electroelastic Effects of Thickness Mode Langasite Resonators / Zhang, HaiFeng --

	Chapter 9. Wave Propagation in a Piezoelectric Plate with Surface Effect / Chen, WeiQiu
Sommario/riassunto	This edited work covers piezoelectric materials in the form of beams, plates, shells, and other structural components in modern devices and structures. Applications are frequency control and detection functions in resonators, sensors, actuators, oscillations, and other smart and intelligent structures. The products and technology are with us in our daily life through computers and communication devices. The contributions cover novel methods for the analysis of piezoelectric structures including wave propagation, high frequency vibration, material characterization, and optimization of structures. Understanding of these methods is increasingly important in the design and modelling of next generation devices and micro-structures with piezoelectric elements and effects.