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9.2 Converse ME effects at ferromagnetic resonance9.3 Hybrid spin-electromagnetic waves in composites; 9.4 Composites for high-frequency devices; 9.5 Multiferroic high-frequency devices; 9.6 Conclusion; References; 10 - Magnetoelectric composites for miniature antennas; 10.1 Introduction; 10.2 Effect of high permeability/permittivity ratio on antenna performance; 10.3 High permeability RF/microwave thick film materials; 10.4 Bulk composites; 10.5 Layered thin film systems; 10.6 Antenna design and characteristics; References; 11 - Magnetoelectric composites for medical application
11.1 Detailed background on wireless capsule endoscopy

Sommario/riassunto

Composite Magnetoelectrics: Materials, Structures, and Applications gives the reader a summary of the theory behind magnetoelectric phenomena, later introducing magnetoelectric materials and structures and the techniques used to fabricate and characterize them. Part two of the book looks at magnetoelectric devices. Applications include magnetic and current sensors, transducers for energy harvesting, microwave and millimeter wave devices, miniature antennas and medical imaging. The final chapter discusses progress towards magnetoelectric memory.Summarises clearly the theory behind magnetoelectr