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Nota di contenuto	Introduction -- Fundamental of HTS Materials and Microwave Filter Design -- Multi-Band HTS Filter Based on Degenerate Mode Resonator -- Compact HTS Filter Design Based on Controllable Multimode Resonator -- Multi-Band HTS Filters Based on Hybrid-Mode Square Ring Loaded Resonator (SRLR) -- HTS Filter Based on Meta-Material Resonator -- Compact HTS Diplexers using Stub-Loaded Resonator -- High-Temperature Superconducting Differential Bandpass Filter (BPF) -- Conclusion and Future Work.

Sommario/riassunto

High-temperature superconducting (HTS) materials are becoming more and more attractive in the context of designing RF/microwave filters because of their lower losses and excellent performance. This book focuses on the superconducting microwave filter and its application in modern communication. It first presents the basic principles, HTS materials and processing and then introduces several types of multi-band HTS bandpass filter (BPF), discussing their properties and analyzing equivalent circuit models and their performances. This book is a valuable resource for students and researchers who are interested in wireless communication and RF/microwave design.