1. Record Nr. UNINA9910523894903321

Autore	Ghigo Gianluca
Titolo	Microwave Analysis of Unconventional Superconductors with Coplanar-Resonator Techniques / / by Gianluca Ghigo, Daniele Torsello
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-93910-3
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (109 pages)
Collana	PoliTO Springer Series, , 2509-7024
Disciplina	537.623
Soggetti	Telecommunication Superconductors - Chemistry Condensed matter Electronics Microwaves, RF Engineering and Optical Communications Superconductors Strongly Correlated Systems Electronics and Microelectronics, Instrumentation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Resonant methods for the microwave analysis of unconventional superconductors -- Microwave analysis of MgB2 and YBa2Cu3O7x thin lms -- Analysis of microwave conductivity and penetration depth of Iron Based Superconductors families -- Eects of disorder on Iron Based Superconductors -- Interplay between magnetism and superconductivity in EuFe2(As1xPx)2 single crystals.
Sommario/riassunto	This book provides a thorough overview of methods and approaches to the experimental characterization of superconductors at microwave frequencies, and includes a detailed description of the two main techniques, both based on the use of coplanar waveguide resonators, that the authors employed to investigate the properties of unconventional superconductors. In the second part several case studies are described, covering a large spectrum of materials and issues. Particular emphasis is given to recent hot topics concerning iron-based superconductors, both of fundamental nature and relevant

for applications. The book is intended as a learning tool for researchers in the field, and serves as a guide providing inspiring examples of the use of coplanar resonator techniques to address key topics in the field of unconventional superconductivity.