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Titolo	Thermoelectric Thin Films : Materials and Devices / / edited by Paolo Mele, Dario Narducci, Michihiro Ohta, Kaniskha Biswas, Juan Morante, Shrikant Saini, Tamio Endo
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Descrizione fisica	1 online resource (xv, 211 pages) : illustrations
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter1: Thin films of bismuth telluride based alloys -- Chapter2: Wearable thermoelectric devices -- Chapter3: Theory and simulations of lattice thermal conduction -- Chapter4: Fabrication and Thermoelectric Properties of PEDOT films and their composites -- Chapter5: Electric field thermopower modulation of 2D electron systems -- Chapter6: Transition-metal-nitride-based thin films as novel thermoelectric materials -- Chapter7: Thermoelectric modules based on oxide thin films -- Chapter8: Thermoelectric properties of Metal Chalcogenide nanosheets and nanofilms grown by Chemicals and Physical routes -- Chapter9: Thermoelectric oxides thin films with hopping transport.
Sommario/riassunto	This book will provide readers with deep insight into the intriguing science of thermoelectric thin films. It serves as a fundamental information source on the techniques and methodologies involved in thermoelectric thin film growth, characterization and device processing. This book involves widespread contributions on several

categories of thermoelectric thin films: oxides, chalcogenides, iodates, nitrides and polymers. This will serve as an invaluable resource for experts to consolidate their knowledge and will provide insight and inspiration to beginners wishing to learn about thermoelectric thin films. Provides a single-source reference on a wide spectrum of topics related to thermoelectric thin films, from organic chemistry to devices, from physical chemistry to applied physics, from synthesis to device implementation; Covers several categories of thermoelectric thin films based on different material approaches such as oxides, chalcogenides, iodates, nitrides and polymers; Discusses synthesis, characterization, and device processing of thermoelectric thin films, as well as the nanoengineering approach to tailor the properties of the used materials at the nanoscale level.