

1. Record Nr.	UNINA9910688383603321
Titolo	Thermoelectricity : recent advances, new perspectives and applications // Guangzhao Qin, editor
Pubbl/distr/stampa	London : , : IntechOpen, , 2022
Descrizione fisica	1 online resource (148 pages)
Disciplina	537.65
Soggetti	Thermoelectricity Electric conductivity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introductory Chapter: Thermoelectricity -- Recent Advances, New Perspectives, and Applications -- 2. Optimization of Thermoelectric Properties Based on Rashba Spin Splitting -- 3. Processing Techniques with Heating Conditions for Multiferroic Systems of BiFeO ₃ , BaTiO ₃ , PbTiO ₃ , CaTiO ₃ Thin Films -- 4. Research Progress of Ionic Thermoelectric Materials for Energy Harvesting -- 5. Challenges in Improving Performance of Oxide Thermoelectrics Using Defect Engineering -- 6. Thermoelectricity Properties of TI _{10-x} ATe ₆ (A = Pb) in Chalcogenide System -- 7. Thermoelectric Elements with Negative Temperature Factor of Resistance -- 8. Quantum Physical Interpretation of Thermoelectric Properties of Ruthenate Pyrochlores.
Sommario/riassunto	Next-generation energy sources are crucial for combating the world's energy crisis. One such alternative energy source is thermoelectricity, which is cost-efficient and environmentally friendly. This book presents a comprehensive overview of the progress made in thermoelectrics over the past few years with a focus on charge and heat carrier transport from both theoretical and experimental viewpoints. It also presents new strategies to improve thermoelectricity and discusses device physics and applications to guide the research community.