

1. Record Nr.	UNINA9910364951703321
Titolo	Novel Thermoelectric Materials and Device Design Concepts // edited by Sergey Skipidarov, Mikhail Nikitin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-12057-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (327 pages)
Disciplina	621.312430284 621.31243
Soggetti	Materials science Force and energy Renewable energy resources Energy systems Energy storage Energy Materials Renewable and Green Energy Energy Systems Energy Storage
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter1: Investigating the performance of Bismuth-Antimony Telluride -- Chapter2: SnSe: breakthrough or not breakthrough? -- Chapter3: Tin Sulfide: a new nontoxic earth-abundant thermoelectric material -- Chapter4: SnTe thermoelectrics -- Chapter5: Lead chalcogenide thermoelectric materials -- Chapter6: High thermoelectric performance in nano-precipitated PbTe-PbSe-PbS quaternary system -- Chapter7: Multicomponent chalcogenides with diamond-like structure as thermoelectrics -- Chapter8: 1-2-2 layered Zintl phases thermoelectric materials -- Chapter9: Skutterudites: breakthrough or not breakthrough -- Chapter10: Half-Heusler thermoelectrics -- Chapter11: Polymer-derived ceramics (PDCs) – a novel inorganic thermoelectric material system -- Chapter12: Grain-boundary engineering for thermal conductivity reduction in bulk nanostructured

thermoelectric materials -- Chapter13: Novel measurements and analysis for thermoelectric devices -- Chapter14: Thermoelectric module simulation for radiant heat recovery.

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## Sommario/riassunto

This book presents and facilitates the interchange of new research and development results concerned with hot topics in thermoelectric generators (TEGs) research, development and production. Topics include prospective thermoelectric materials for manufacturing TEGs operating in low-, mid-, and high temperature ranges, thermal and mechanical degradation issues in prospective thermoelectric materials and TEG modules, theoretical study of novel inorganic and organic thermoelectric materials, novel methods and apparatus for measuring performance of thermoelectric materials and TEGs, and thermoelectric power generators simulation, modeling, design and practice. This book helps researchers tackle the challenges that still remain in creating cheap and effective TEGs and presents the latest trends and technologies in development and production of advanced thermoelectric generation devices. Provides a concentration of new research and development in the field of Thermoelectric energy generation; Facilitates the rapid interchange of new ideas and results to react effectively to the challenges of Thermoelectric generators; Explains both the advancements and challenges in TEGs.

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