

1. Record Nr.	UNINA9910960731403321
Titolo	Thermoelectric materials : advances and applications / / Enrique Macia-Barber
Pubbl/distr/stampa	Boca Raton, Florida : , : CRC Press, , [2015] ©2015
ISBN	0-429-17179-X 981-4463-52-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (355 p.)
Disciplina	621.31/243 621.31243
Soggetti	Thermoelectric materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Cover; Contents; Preface; Chapter 1: Basic Notions; Chapter 2: Fundamental Aspects; Chapter 3: The Structural Complexity Approach; Chapter 4: The Electronic Structure Role; Chapter 5: Beyond Periodic Order; Chapter 6: Organic Semiconductors and Polymers; Bibliography; Back Cover
Sommario/riassunto	Environmental and economic concerns have significantly spurred the search for novel, high-performance thermoelectric materials for energy conversion in small-scale power generation and refrigeration devices. This quest has been mainly fueled by the introduction of new designs and the synthesis of new materials. In fact, good thermoelectric materials must simultaneously exhibit extreme properties: they must have very low thermal conductivity values and both electrical conductivity and Seebeck coefficient high values as well. Since these transport coefficients are interrelated, the required task