

1. Record Nr.	UNINA9910299598403321
Autore	Dincer Ibrahim
Titolo	Heat Storage: A Unique Solution For Energy Systems // by Ibrahim Dincer, Mehmet Akif Ezan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-91893-1
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (343 pages)
Collana	Green Energy and Technology, , 1865-3529
Disciplina	621.3126
Soggetti	Renewable energy resources Automotive engineering Thermodynamics Energy storage Heat engineering Heat - Transmission Mass transfer Electrical engineering Renewable and Green Energy Automotive Engineering Energy Storage Engineering Thermodynamics, Heat and Mass Transfer Electrical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter1. Fundamental aspects of thermodynamics and heat transfer._ Chapter2. Energy storage methods -- Chapter3. Thermal energy storage methods -- Chapter4. Thermal energy storage applications -- Chapter5. System modeling and analysis -- Chapter6. System optimization -- Chapter7. System characterization and case studies.
Sommario/riassunto	This book covers emerging energy storage technologies and material characterization methods along with various systems and applications in building, power generation systems and thermal management. The authors present options available for reducing the net energy

consumption for heating/cooling, improving the thermal properties of the phase change materials and optimization methods for heat storage embedded multi-generation systems. An in-depth discussion on the natural convection-driven phase change is included. The book also discusses main energy storage options for thermal management practices in photovoltaics and phase change material applications that aim passive thermal control. This book will appeal to researchers and professionals in the fields of mechanical engineering, chemical engineering, electrical engineering, renewable energy, and thermodynamics. It can also be used as an ancillary text in upper-level undergraduate courses and graduate courses in these fields.
