

1. Record Nr.	UNINA9910337585703321
Titolo	Recent Advancements in Materials and Systems for Thermal Energy Storage : An Introduction to Experimental Characterization Methods // edited by Andrea Frazzica, Luisa F. Cabeza
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-96640-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (246 pages)
Collana	Green Energy and Technology, , 1865-3529
Disciplina	620.11296
Soggetti	Energy storage Materials science Force and energy Energy systems Energy Storage Energy Materials Characterization and Evaluation of Materials Energy Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Thermal Energy Storage Technologies -- Advancement in Materials for Thermal Energy Storage -- Advancement in Thermal Energy Storage Systems -- Experimental Methods for the Characterization of Materials for Thermal Energy Storage -- Experimental Methods for the Characterization of Systems for Thermal Energy Storage -- Conclusions.
Sommario/riassunto	This book presents the latest advances in thermal energy storage development at both the materials and systems level. It covers various fields of application, including domestic, industrial and transport, as well as diverse technologies, such as sensible, latent and thermochemical. The contributors introduce readers to the main performance indicators for thermal storage systems, and discuss thermal energy storage (TES) technologies that can be used to improve the efficiency of energy systems and increase the share of renewable

energy sources in numerous fields of application. In addition to the latest advances, the authors discuss the development and characterization of advanced materials and systems for sensible, latent and thermochemical TES, as well as the TES market and practical applications. They also report on and assess the feasibility of uniform characterization protocols and main performance indicators, compared to previous attempts to be found in the literature. The book will help to increase awareness of thermal energy storage technologies in both the academic and industrial sectors, while also providing experts new tools to achieve a uniform approach to thermal energy storage characterization methods. It will also be of interest to all students and researchers seeking an introduction to recent innovations in TES technologies. .
