1. Record Nr. UNISA996279972603316

Titolo	2013 World Electric Vehicle Symposium and Exhibition (EVS27) / / Institute of Electrical and Electronics Engineers
Pubbl/distr/stampa	Piscataway, NJ : , : Institute of Electrical and Electronics Engineers, , 2013
ISBN	1-4799-3832-7
Descrizione fisica	1 online resource
Disciplina	629.2293
Soggetti	Electric vehicles
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Electric Vehicles, hybrid vehicles, fuel cell vehicles.

2. Record Nr. UNINA9910788070203321

Titolo	Advances in thermal energy storage systems : methods and applications / / Luisa F. Cabeza
Pubbl/distr/stampa	Cambridge, [England] : , : Woodhead Publishing, , 2015 ©2015
ISBN	1-78242-096-7
Descrizione fisica	1 online resource (623 p.)
Collana	Woodhead Publishing Series in Energy
Disciplina	621.4028
Soggetti	Heat storage Engineering Mechanical engineering
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 and index.
Nota di contenuto	Cover; Advances in Thermal Energy Storage Systems: Methods and Applications; Copyright; Contents; List of contributors; Woodhead Publishing Series in Energy; Preface; 1 Introduction to thermal energy storage (TES) systems; 1.1 Introduction; 1.2 Basic thermodynamics of energy storage; 1.3 Overview of system types; 1.4 Environmental impact and energy savings produced; 1.5 Conclusions; Acknowledgements; References; Part One Sensible heat storage systems; 2 Using water for heat storage in thermal energy storage (TES); 2.1 Introduction 2.2 Principles of sensible heat storage systems involving water2.3 Advances in the use of water for heat storage; 2.4 Future trends; 2.5 Sources of further information and advice; References; 3 Using molten salts and other liquid sensible storage media inthermal energy storage (TES) systems; 3.1 Introduction; 3.2 Principles of heat storage systems using molten salts and other liquid sensible storage media; 3.3 Advances in molten salt storage; 3.4 Advances in other liquid sensible storage media; 3.5 Future trends; 3.6 Sources of further information and advice; Acknowledgements; References 4 Using concrete and other solid storage media in thermal energy storage (TES) systems 4.1 Introduction; 4.2 Principles of heat storage in solid media; 4.3 State-of-the-art regenerator-type storage; 4.4

Advances in the use of solid storage media for heat storage; References; 5 The use of aquifers as thermal energy storage (TES) systems; 5.1 Introduction; 5.2 Thermal sources; 5.3 Aquifer thermal energy storage (ATES); 5.4 Thermal and geophysical aspects; 5.5 ATES design; 5.6 ATES cooling only case study: Richard Stockton College of New Jersey
5.7 ATES district heating and cooling with heat pumps case study: Eindhoven University of Technology5.8 ATES heating and cooling with de-icing case study: ATES plant at Stockholm Arlanda Airport; 5.9 Conclusion; Acknowledgements; Bibliography; 6 The use of borehole thermal energy storage (BTES) systems; 6.1 Introduction; 6.2 System integration of borehole thermal energy storage (BTES); 6.3 Investigation and design of BTES construction sites; 6.4 Construction of borehole heat exchangers (BHEs) and BTES; 6.5 Examples of BTES; 6.6 Conclusion and future trends; References
7 Analysis, modeling and simulation of underground thermalenergy storage (UTES) systems7.1 Introduction; 7.2 Aquifer thermal energy storage (ATES) system; 7.3 Borehole thermal energy storage (BTES) system; 7.4 FEFLOW as a tool for simulating underground thermal energy storage (UTES); 7.5 Applications; References; Appendix: Nomenclature; Part Two Latent heat storage systems; 8 Using ice and snow in thermal energy storage systems; 8.1 Introduction; 8.2 Principles of thermal energy storage systems using snow and ice; 8.3 Design and implementation of thermal energy storage using snow
8.4 Full-scale applications

Sommario/riassunto

Thermal energy storage (TES) technologies store thermal energy (both heat and cold) for later use as required, rather than at the time of production. They are therefore important counterparts to various intermittent renewable energy generation methods and also provide a way of valorising waste process heat and reducing the energy demand of buildings. This book provides an authoritative overview of this key area. Part one reviews sensible heat storage technologies. Part two covers latent and thermochemical heat storage respectively. The final section addresses applications in heating and energy