1. Record Nr. UNINA9910865295503321

Autore	Henni Abdellah
Titolo	Alternative Energy Resources in the MENA Region / / edited by Abdellah Henni, Abdelazim Negm, Djamal Zerrouki
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2024
ISBN	9783031607509 9783031607493
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (483 pages)
Collana	The Handbook of Environmental Chemistry, , 1616-864X ; ; 131
Altri autori (Persone)	NegmAbdelazim ZerroukiDjamal
Disciplina	621.042
Soggetti	Renewable energy sources Green chemistry Bioremediation Environmental chemistry Nanobiotechnology Energy policy Renewable Energy Green Chemistry Environmental Biotechnology Environmental Chemistry Energy Policy, Economics and Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 Introduction to Energy Resources in the MENA Region -- Part I Solar energy -- Chapter 2 An Analysis of Hydrogen Production from Renewable and Sustainable Energy Resources in Algeria -- Chapter 3 High Penetration of Solar Energy to the Algerian Electricity System in the Context of an Energy Roadmap Toward a Sustainable Energy Paradigm by 2030 -- Chapter 4 Alternative Energy Resources in MENA Regions with a Focus on the Thermal Energy Storage (TES) -- Chapter 5 Solar energy in the United Arab Emirates -- Chapter 6 Promotion of Solar Energies in Southern Algeria Strategies and Perspectives -- Part II

Wind energy -- Chapter 7 An Assessment of Wind Energy Potential as an Electricity Generation Source in Iran -- Chapter 8 Wind and Solar Energy Resources in Morocco: Current Status and Assessment up to 2050 -- Chapter 9 Status and Future Prospects of Wind Energy in Oman -- Chapter 10 Contribution of Renewable Energy in Algeria -- Chapter 11 Evaluation of the Wind Energy Potential sin Morocco -- Part III Geothermal and Biomass Energy -- Chapter 12 Biomass Electricity Generation in a Fully Renewable Power Sector of Africa: Viable Technologies, Opportunities, Barriers, and Policy Regulation -- Chapter 13 Solar Photovoltaic Thermal Collector as a Cogeneration Energy System: Conception and Recent Development in the Mediterranean Region -- Chapter 14 Assessment and Contribution of Biomass Residues to Renewable Energy Resources in Egypt -- Chapter 15 Hydrogeology of Geothermal Water Sources in Lebanon as an Alternative Energy Source -- Chapter 16 Geothermal Energy Resources in Jordan -- Part IV The experiences from developed countries -- Chapter 17 Current and Potential of Forestry Biomass Energy in China -- Chapter 18 Biotransformation of Lignocellulosic-Based Biomass Waste into Value-Added Energy Products -- Chapter 19 An Assessment of Renewable Energy Resources for Electricity Generation in Turkey -- Chapter 20 Conclusions and Recommendations for Renewable Energy Resources in the MENA Region.

Sommario/riassunto

This book outlines the development of renewable energies in the Middle East and North Africa, it offers up-to-date information about their variability, availability and utilization, and serves as a guide for understanding the MENA renewable energy potential. Readers will find an authoritative discussion about the implementation of renewable energies, trends and forecast of solar, wind and geothermal systems applications in this region. Case studies from China, Mexico and Vietnam are also included in this book to foster the implementation of renewable energies in the MENA region. The MENA region is known for its immense oil, petroleum and gas reserve, being one of the most important regions in the world for fossil energy accessibility and, hence, for the global economic stability. This region holds at the same time the world’s greatest potential for renewable energy and over the past few years it has been receiving national and international political support for promoting the future of solar and wind power energies. However, can the region go green taking into account the availability of the natural resources? Expert contributors from countries such as United Arab Emirates, Egypt, Algeria, Turkey, and Morocco provide their perspective on this challenge and offer a comprehensive overview of the latest pilot projects for renewable energy in the region. This book will appeal to researchers, students, engineers and policymakers interested in the potential of alternative energy resources in the MENA region.