Record Nr. UNINA9910876530103321 Nanotechnology for the energy challenge / / edited by Javier Garcia-**Titolo** Martinez; with a foreword by Zhong Lin Wang Pubbl/distr/stampa Weinheim, Germany, : Wiley, c2013 **ISBN** 3-527-66510-2 3-527-66513-7 3-527-66512-9 Edizione [2nd rev. and enlarged ed.] Descrizione fisica 1 online resource (600 p.) Altri autori (Persone) Garcia-MartinezJavier Disciplina 621.042 Soggetti **Energy development - Materials** Nanostructured 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 and index. Cover; Title page; Copyright page; Contents; Foreword; Preface to the Nota di contenuto 2nd Edition: Preface to the 1st Edition: List of Contributors: Part One: Sustainable Energy Production; 1: Nanotechnology for Energy Production; 1.1 Energy Challenges in the Twenty-first Century and Nanotechnology; 1.2 Nanotechnology in Energy Production; 1.2.1

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## Sommario/riassunto

With the daunting energy challenges faced by Mankind in the 21st century, revolutionary new technologies will be the key to a clean, secure and sustainable energy future. Nanostructures often have surprising and very useful capabilities and are thus paving the way for new methodologies in almost every kind of industry. This exceptional monograph provides an overview of the subject, and presents the current state of the art with regard to different aspects of sustainable production, efficient storage and low-impact use of energy. Comprised of eighteen chapters, the book