

1. Record Nr.	UNINA9910299623103321
Titolo	Low-cost Nanomaterials : Toward Greener and More Efficient Energy Applications // edited by Zhiqun Lin, Jun Wang
Pubbl/distr/stampa	London : , : Springer London : , : Imprint : Springer, , 2014
ISBN	1-4471-6473-3
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (484 p.)
Collana	Green Energy and Technology, , 1865-3529
Disciplina	621.042
Soggetti	Energy systems Nanotechnology Fossil fuels Renewable energy resources Transportation Energy Systems Nanotechnology and Microengineering Fossil Fuels (incl. Carbon Capture) Renewable and Green Energy
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 at the end of each chapters.
Nota di contenuto	Chapter 1 Design, Fabrication and Modification of Cost-Effective Nanostructured TiO <sub>2</sub> for Solar Energy Applications -- Chapter 2 Nanostructured Nitrogen-doping TiO <sub>2</sub> Nanomaterials for Photoanodes of Dye-Sensitized Solar Cells -- Chapter 3 Low-cost Pt-free counter electrode catalysts in dye-sensitized solar cells -- Chapter 4 Quantum Dot Sensitized Solar Cells -- Chapter 5 The Renaissance of Iron Pyrite Photovoltaics: Progress, Challenges and Perspectives -- Chapter 6 High-Performance Bulk-Heterojunction Polymer Solar Cells -- Chapter 7 Indium Tin Oxide-free Polymer Solar Cells: Toward Commercial Reality -- Chapter 8 Low-Cost Fabrication of Organic Photovoltaics and Polymer LEDs -- Chapter 9 Low Cost Nanomaterials for Photoelectrochemical Water Splitting.
Sommario/riassunto	This book will cover the most recent progress on the use of low-cost nanomaterials and development of low-cost/large scale processing

techniques for greener and more efficient energy related applications, including but not limited to solar cells, energy storage, fuel cells, hydrogen generation, biofuels, etc. Leading researchers will be invited to author chapters in the field with their expertise. Each chapter will provide general introduction to a specific topic, current status of research and development, research challenges, and outlook for future direction of research. This book aims to benefit a broad readership, from undergraduate/graduate students to researchers working on renewable energy.

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