1. Record Nr. UNINA9910162962103321

Autore	Oku Takeo <1965->
Titolo	Solar cells and energy materials / / Takeo Oku
Pubbl/distr/stampa	Berlin ; ; Boston : , : Walter de Gruyter, GmbH, , [2017] ©2017
ISBN	3-11-038106-0 3-11-029850-3
Descrizione fisica	1 online resource (244 pages) : color illustrations
Disciplina	621.31/244
Soggetti	Solar cells Photovoltaic cells Electric batteries Electric power transmission Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Preface -- Contents -- Table for physical constants -- Periodic table -- 1. Energy -- 2. Solar energy -- 3. Basics of solar cells -- 4. Inorganic solar cells -- 5. Organic-type solar cells -- 6. Perovskite-type solar cells -- 7. Future solar cells -- 8. Nuclear fusion materials -- 9. Other energy materials -- Index
Sommario/riassunto	Solar Cells and Energy Materials takes an in-depth look at the basics behind energy, solar energy as well as future and alternative energy materials. The author presents insights into the current state-of-the-art of solar cells, including their basic science, inorganic, organic and Perovskite-type cells. The author also gives an outlook into next generation energy materials and sources. The focus of this book is not only the presentation of available and developing energy materials, but their thorough examination and characterization. In addition to solar cell technology and the promising application of nanostructures like quantum dots, the author discusses the science and potential of nuclear fusion materials and other energy materials like hydrogen storage materials, BN nanomaterials, alternative fuel cells and SIC FET.