Record Nr. UNINA9910819841503321 Applied photovoltaics / / edited by Stuart R. Wenham, Martin A. Green, **Titolo** Muriel E. Watt, Richard Corkish and Alistair Sproul Pubbl/distr/stampa Boca Raton, FL:,: Routledge, an imprint of Taylor and Francis,, [2013] ©2012 **ISBN** 1-84977-698-9 1-283-96748-0 1-136-52830-X Edizione [3rd ed.] Descrizione fisica 1 online resource (305 p.) Disciplina 621.31244 Photovoltaic power generation Soggetti Photovoltaic cells Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto The characteristics of sunlight -- Semiconductors and P-N junctions --The behaviour of solar cells -- Cell properties and design -- PV cell interconnection and module fabrication -- Stand-alone photovoltaic system components -- Designing stand-alone photovoltaic systems --Specific purpose photovoltaic applications -- Remote area power supply systems -- Grid-connected photovoltaic systems --Photovoltaic water pumping system components. Sommario/riassunto The new edition of this thoroughly considered textbook provides a reliable, accessible and comprehensive guide for students of photovoltaic applications and renewable energy engineering. Written by a group of award-winning authors it is brimming with information and is carefully designed to meet the needs of its readers. Along with exercises and references at the end of each chapter, it features a set of detailed technical appendices that provide essential equations, data sources and standards. The new edition has been fully updated with the latest information on photovoltaic cells, modules, applications and policy. Starting from basics with 'The Characteristics of Sunlight' the reader is guided step-by-step through semiconductors and p-n junctions; the behaviour of solar cells; cell properties and design; and

PV cell interconnection and module fabrication. The book covers standalone photovoltaic systems; specific purpose photovoltaic systems; remote area power supply systems; grid-connected photovoltaic systems and water pumping. Applied Photovoltaics is highly illustrated and very accessible, providing the reader with all the information needed to start working with photovoltaics.