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Autore	Bokali Matevž
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Theoretical Background -- Spatially Resolved Characterisation Techniques -- SPICE Model and Simulations -- Cdte Solar Cells -- Dye-Sensitised Solar Cells -- Module Level Electroluminescence Imaging -- Concluding Remarks and Outlook Trends Introduction -- Theoretical Background -- Spatially Resolved Characterisation Techniques -- SPICE Model and Simulations -- Cdte Solar Cells -- Dye-Sensitised Solar Cells -- Module Level Electroluminescence Imaging -- Concluding Remarks and Outlook Trends.
Sommario/riassunto	The book is devoted to the spatial characterization of solar cells and PV modules. It is written both as a monograph as well as a succinct guide for the state-of-the-art spatial characterization techniques and approaches. Amongst the approaches discussed are visual imaging, electro- and photo-luminescence imaging, thermography, and light beam induced mapping techniques. Emphasis is given on the luminescence image acquisition and interpretation due to its great potential. Characterization techniques are accompanied by simulation tools. The contents are aimed at a readership of students and senior

researchers in R&D as well as engineers in industry who are newcomers to the spatial characterization of either solar cells or PV modules. The concepts and approaches presented herein are based on but not limited to case studies of real thin-film PV devices. Key features: Review of spatially resolved characterization techniques and accompanying SPICE simulations in photovoltaics Use of spatially resolved characterization techniques and their combinations for the identification of inhomogeneities in small area CdTe and dye-sensitized solar cells Case studies of electroluminescence imaging of commercial PV modules (c-Si, CIGS, CdTe, a-Si, tandem and triple junction thin-film-Si) The contents are aimed at a readership of students and senior researchers in R&D as well as engineers in industry who are newcomers to the spatial characterization of either solar cells or PV modules. The concepts and approaches presented herein are based on but not limited to case studies of real thin-film PV devices. Key features: Review of spatially resolved characterization techniques and accompanying SPICE simulations in photovoltaics Use of spatially resolved characterization techniques and their combinations for the identification of inhomogeneities in small area CdTe and dye-sensitized solar cells Case studies of electroluminescence imaging of commercial PV modules (c-Si, CIGS, CdTe, a-Si, tandem and triple junction thin-film-Si).

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