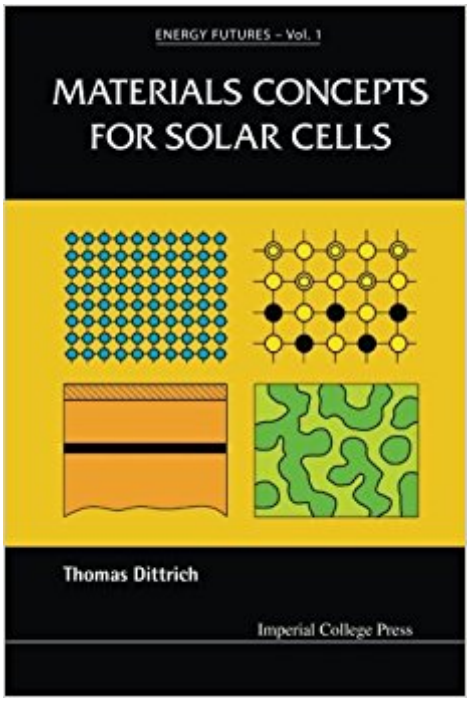
Materials Concepts For Solar Cells (Energy Futures)



Synopsis

"The book offers a well-balanced treatment of physical principles and materials-related concepts of solar cells, and considers both classical and new trends in this rapidly developing field . . . The book is perfectly structured, with a concise summary of the most important points provided for every chapter, and the description of the concepts well complemented by the tasks. I strongly recommend this book for students and scientists attracted to the renewable energy and the materials science fields." Andrey Rogach Chair Professor of Photonic Materials City University of Hong Kong “The book is of good pedagogical value. Students as well as teachers can make use of this either as a main textbook or as a support for their lessons. In general, the book is well-written and provides a solid basis for studying solar cells.” Mrs Bulletin This textbook bridges the gap between basic literature on the physics of solar cells and highly specialized books about photovoltaic solar energy conversion. It is intended to give students with a background in engineering, materials science, chemistry or physics a comprehensive introduction to materials concepts for solar cells. To this end, general principles of solar cells and materials demands are explained in the first part of this book. The second part is devoted to the four classes of materials concepts for solar cells: solar cells based on crystals of silicon, epitaxial layer systems of Iii-V semiconductors, thin-film absorbers on foreign substrates, and nano-composite absorbers.

Book Information

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