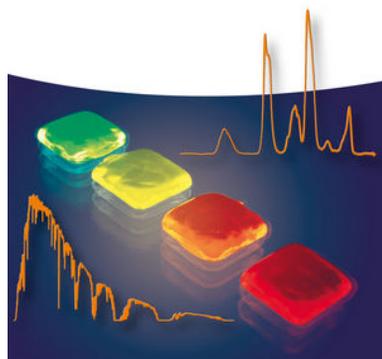


WILEY-VCH

Edited by
Ralf B. Wehrspohn, Uwe Rau, and Andreas Gombert**Photon Management
in Solar Cells**

Photon Management in Solar Cells

Ralf B. Wehrspohn (Editor), Uwe Rau (Editor), Andreas Gombert (Editor)

E-Book	978-3-527-66568-6	April 2015	\$152.99
Hardcover	978-3-527-41175-7	June 2015	\$190.00
O-Book	978-3-527-66566-2	March 2015	Available on Wiley Online Library

DESCRIPTION

Written by renowned experts in the field of photon management in solar cells, this one-stop reference gives an introduction to the physics of light management in solar cells, and discusses the different concepts and methods of applying photon management.

The authors cover the physics, principles, concepts, technologies, and methods used, explaining how to increase the efficiency of solar cells by splitting or modifying the solar spectrum before they absorb the sunlight. In so doing, they present novel concepts and materials allowing for the cheaper, more flexible manufacture of solar cells and systems.

For educational purposes, the authors have split the reasons for photon management into spatial and spectral light management.

Bridging the gap between the photonics and the photovoltaics communities, this is an invaluable reference for materials scientists, physicists in industry, experimental physicists, lecturers in physics, Ph.D. students in physics and material sciences, engineers in power technology, applied and surface physicists.

ABOUT THE AUTHOR

Ralf B. Wehrspohn studied physics at the University of Oldenburg, Germany, and received his PhD degree from the Ecole Polytechnique in Paris in 1997. Until 1999 he worked on thin-film transistors for AMLCDs at Philips Research. From 1999 until 2003 he led the Porous Materials/Photonic Crystals group at the Max

Planck Institute of Microstructure Physics in Halle, after which he held a chair at the Physics department of the University of Paderborn for three years. Since 2006, he has been the director of the Fraunhofer-Institute for Mechanics of Materials and a Professor of Physics at the Martin-Luther-University Halle-Wittenberg. Professor Wehrspohn was awarded the Maier-Leibnitz Prize of the German Science Foundation in 2003.

Uwe Rau studied physics at the University of Tübingen, Germany, and at the University Claude Bernard, Lyon, France. He obtained his PhD 1991 from the Physical Institute of the University Tübingen. From 1991-1993 he worked at the Max Planck Institute for Solid-State Research. He was scientific group leader from 1993-2007 at the University Bayreuth and at the University Stuttgart. Since 2007 he is full professor at RWTH Aachen (Faculty Electrical Engineering and Information Technology, Chair of Photovoltaics). Simultaneously he is director of the Institute of Energy and Climate Research IEK5-Photovoltaics at Forschungszentrum Jülich).

Andreas Gombert studied photo engineering and optics in Cologne, Germany, and Strasbourg, France, and received his PhD from the University Louis Pasteur, Strasbourg. His professional career started in 1986 at the Fraunhofer Institute for Physical Measurement Techniques in the field of integrated optics. From 1991 to 2008, he worked at the Fraunhofer Institute for Solar Energy Systems where he headed the department Materials Research and Applied Optics. Since 2008 he is Vice President System Platform and R&D and since 2014 also Managing Director of Soitec Solar GmbH, Freiburg, Germany, a division of the Soitec Group. He lectures at Technical Faculty of the University of Freiburg, Germany where he also habilitated.

To purchase this product, please visit <https://www.wiley.com/en-us/9783527665662>