

2010 | OSA Optics & Photonics Congress

CALL for PAPERS

**RENEWABLE ENERGY:
OSA OPTICS & PHOTONICS CONGRESS**

Optical Nanostructures for
Photovoltaics (PV)

Solid-State and Organic Lighting
(SOLELED)

COLLOCATED WITH THE ADVANCED PHOTONICS
OPTICS & PHOTONICS CONGRESS

June 21-24, 2010

Karlsruhe-Messe und Kongress
(Conference Center)
KARLSRUHE, GERMANY

SUBMISSION DEADLINE:

JANUARY 20, 2010

12:00 PM NOON EST (17:00 GMT)

Extended through February 9, 2010

12:00 p.m. noon EST (17:00 GMT)

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OSA[®]

OPTICAL NANOSTRUCTURES FOR PHOTOVOLTAICS (PV)

June 21-24 | 2010

Photovoltaic solar electricity is one of the key technologies for reducing the world's reliance on fossil fuels for energy generation. Reduced costs and higher conversion efficiencies are essential for making photovoltaics economically competitive. Optical nanostructures have a major role to play in improving the efficiency of solar cells by increasing the absorption of incident light, especially for thin-film applications. Solar concentrator systems, organic solar cells and dye-sensitized cells also stand to benefit from nanophotonic engineering schemes.

This meeting aims to bring together experts from the fields of nanophotonics and photovoltaics to address the issues and opportunities for merging these two technologies. The scope of the meeting covers all aspects of optical nanostructures for photovoltaic applications, from textured surfaces and diffraction gratings through to emerging areas topics such as plasmonic enhancement, spectrally split multiple cells and spectral flux management in multijunction solar cells.

PAPER TOPICS

- Antireflection coatings
- Gratings and diffractive optics
- Plasmonic enhancement
- Slow light and resonance enhancement of optical absorption
- Spectral splitting
- Spectral flux management
- Nanostructures for solar concentrators
- Nanostructures for dye-sensitized solar cells
- Nanostructures for thin-film organic solar cells
- Novel solar cell geometries

INVITED SPEAKERS

(As of November 2009)

Localized Surface Plasmons for High Efficiency Solar Cells, **Kylie Catchpole**, Australian Natl. Univ., Canberra, Australia

Efficient Nanocone Light Trapping for Photovoltaics, **Yi Cui**, Stanford Univ., USA

Implications of Nanophotonics for the Limit of Thin-Film Light Trapping and for the Single-Junction Shockley-Queisser Limit, **Shanhui Fan**, Stanford Univ., USA

Harvesting Solar Energy by Creating an Innovative Network of Nanostructures, **Shawn Lin**, Rensselaer Polytechnic Inst., USA

Title to Be Announced, **Moritz Riede**, Technische Univ. Dresden, Germany

Slow Light in Photonic Crystals for Photovoltaic Applications, **Christian Seassale**, Univ. of Lyon, France

Photonics of Intermediate Reflectors in Tandem Solar Cells, **Ralf Wehrspohn**, Univ. of Halle, Germany

GENERAL CHAIR

Thomas Krauss, Univ. of St. Andrews, UK

PROGRAM CHAIRS

Mark Brongersma, Stanford Univ., USA

Shanhui Fan, Stanford Univ., USA

Frederik C. Krebs, Technical Univ. of Denmark, Denmark

Karl Leo, Technische Univ. Dresden, Germany

Shawn Lin, Rensselaer Polytechnic Inst., USA

Dennis Prather, Univ. of Delaware, USA

Ralph Wehrspohn, Fraunhofer Inst. for Mechanics of Materials IWM, Germany

Thomas P. White, Univ. of St. Andrews, UK

VISIT WWW.OSA.ORG/PV FOR MORE INFORMATION AND TO SUBMIT YOUR PAPER.

2010 | OSA Optics & Photonics Congress

ATTEND THE ADVANCED PHOTONICS CONGRESS IN KARLSRUHE, GERMANY, JUNE 21–24, 2010

- Collocated with the **Renewable Energy** OSA Optics & Photonics Congress
- Joint sessions
- Poster sessions
- Joint plenary sessions
- **Celebrating 50 Years of the Laser Special Plenary:**
Featuring Keynote Speaker, Theodor W. Hänsch, Max Planck Inst. for Quantum Optics, Germany, 2005 Nobel Prize Laureate
- Networking, information sharing and discussion

The Advanced Photonics: OSA Optics & Photonics Congress is collocated with the Renewable Energy: OSA Optics & Photonics Congress. Combined the congress features 7 meetings with a broad range of topics including:

- FTTx architectures
- Grating Properties
- Nonlinear Effects in Fibers
- Slow and Fast Light in Sensors
- Solid-State Lighting Systems

Registered attendees of any of the featured meetings will enjoy more opportunities for cross-networking and information sharing. One registration fee will allow access to any session held at both the Advanced Photonics and Renewable Energy congresses.

JOIN OSA TODAY!

By signing up to become an official OSA member, among many other valuable benefits, you'll be able to register for OSA's Fall Congress at the member discount price – that's a \$160 difference! To become an OSA member, visit www.osa.org/membership.

OSA FOUNDATION STUDENT TRAVEL GRANTS

The OSA Foundation is pleased to offer travel grants of up to \$1,000 USD to students from developing countries who are attending Advanced Photonics 2010.

Please visit www.osa.org/aboutosa/grants/foundationgrant/ to find out more information about how to apply for a grant. All applications for Advanced Photonics must be received by April 15, 2010.