COST Action MP1307

Stable Next Generation Photovoltaics: Unraveling Degradation Mechanisms of Organic Solar Cells by Complementary Characterization Techniques.

3rd MC Meeting and 2nd WG Meeting

Harald Hoppe

E-MRS Spring Meeting 2015 Lille

COST is supported by the EU Framework Programme

ESF provides the COST Office through a European Commission contract

Combined: E-MRS & COST Meeting

- May 11th-15th: Colocation of E-MRS and COST Meeting
- Monday-Tuesday afternoon: COST Meeting
- Tuesday afternoon-Firday afternoon: E-MRS Symposium E
- Order due to parallel event: HOPV May 10th-May13th, Italy

- **Materials design and processing concepts for efficient and stable organic, hybrid, perovskite and dye solar cells – Symposium E**

Scope

Stable and efficient materials and device structures are required to make next generation photovoltaic technologies an economic reality. Besides improved operational stability, cost-effectiveness and efficient high-throughput processing approaches determine the fate of these photovoltaic technologies.

Organized by:

Monica Lira-Cantu

Lars Müller-Meskamp

Thomas Brown and Harald Hoppe

Hot topics to be covered

- New device materials, architectures, interlayers for enhanced performance and stability
- Degradation mechanisms (interfaces, “burn-in”, chemical, physical, in/extrinsic, …)
- Modelling of degradation phenomena
- Advanced (e.g. in-situ) characterization methods for studying degradation
- Standardizations and definitions for degradation protocols and operational lifetimes
- Upscaling and advanced large-area processing (vacuum and solution)
- “Green” processing and cost reduction strategies
- Energy amortization and life-cycle analysis
- Quality control and process monitoring (e.g. in-line metrology)
- Improved encapsulation, barrier materials and characterization

Confirmed invited speakers

- Christoph Brabec
- Reinhold Dauskardt
- John Fahlteich
- Anders Hagfeldt
- Seigo Ito
- Nancy Jiang
- Mike McGehee
- Brian O'Regan
- Sang Il Seok
- Antonio Urbina
- Eszter Voroshazi

Special issue Adv. Energy Mater.

- Invited speakers, others and participants are invited to submit a paper to Advanced Energy Materials (special issue on invitation)

Working title:

- Materials Design and Processing Concepts for Efficient and Stable Organic, Hybrid, Perovskite and Dye Solar Cells

- No warrantee for acceptance – classical refereeing process
- Open soon

COST action support

Financial support for:

- Invited speakers (partly dependent on COST membership)
- COST action MC-members (according to general rules)
- Further contributors from COST action (remaining budget)

- Overall limited to ~36 000 €(?)

More information on webpage

E-MRS Spring Meeting Symposium E:

http://www.emrs-strasbourg.com/index.php?option=com_content&task=view&Itemid=1652&id=822

Abstract submission open:

http://www.emrs-strasbourg.com/index.php?option=com_content&task=view&id=409&Itemid=152