Hybrid Inorganic/Organic Systems for Opto-Electronics

Collaborative Research Centre 951

Colloquium Announcement

of the Collaborative Research Centre 951
"Hybrid Inorganic/Organic Systems for Opto-Electronics"

Thomas Anthopoulos

King Abdullah University of Science and Technology (KAUST), KAUST Solar Centre, Thuwal, Kingdom of Saudi Arabia

Strategies for advancing the performance of organic photovoltaics

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Christoph T. Koch

Department of Physics and IRIS Adlershof, Humboldt-Universität zu Berlin

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Rudower Chaussee 25, 12489 Berlin
Room 0`119

Collaborative Research Centre 951
Department of Physics
Humboldt-Universität zu Berlin

Email: sfb951@physik.hu-berlin.de
Tel.: +49 30 2093 66380
www.physik.hu-berlin.de/sfb951

Partners

Strategies for advancing the performance of organic photovoltaics

Thomas D. Anthopoulos

King Abdullah University of Science and Technology (KAUST), KAUST Solar Centre,
Thuwal 23955-6900, Kingdom of Saudi Arabia

The dramatic advances in the power conversion efficiency (PCE) of organic photovoltaics (OPVs) witnessed in recent years have been primarily driven by the development of new materials and the minimisation of performance losses associated with conventional cell architectures. This talk will discuss our recent OPV work, focusing on practical strategies for boosting cell performance. I will first discuss using low-dimensional charge-extracting interlayers and the numerous advantages of these innovative materials for next-generation OPVs. I will then present recent progress in using molecular dopants to improve the PCE of OPVs and how their combination with innovative interlayers can improve the material utilisation and circularity of the ensuing OPV cells without compromising their performance.