

SKM-Symposium Elementary Processes in Organic Photovoltaics (SKM-SYOP)

jointly organized by
the Chemical and Polymer Physics Division (CPP),
the Thin Films Division (DS), and
the Semiconductor Physics Division (HL)

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In spite of intensive research, the photovoltaic properties of organic solar cells are not yet completely understood. Current open questions include the dynamics of excited states as well as the generation and extraction of free carriers in organic multi-component systems. Recent research has shown that these processes are closely connected to the multi-scale architecture of organic solar cells. This includes the electronic structure of the molecules and polymers used, the intermolecular order and, finally, the supramolecular arrangement in the device. Real improvements in device performance can be achieved through a better understanding of these elementary processes, requiring a close exchange between scientists in different fields of research. The symposium “Elementary Processes in Organic Photovoltaics” will create a forum for scientists involved in the design and structure of organic thin films, the nature and dynamics of excited states, and the generation of free carriers as well as full device simulations.

Overview of Invited Talks and Sessions

(lecture room TRE Math)

Invited Talks

SKM-SYOP 1.1	Mon	10:30–11:00	TRE Ma	Charge separation in organic solar cells and the principle of detailed balance — ●UWE RAU, THOMAS KIRCHARTZ
SKM-SYOP 1.2	Mon	11:00–11:30	TRE Ma	Three-Dimensional Nanoscale Organization of Bulk Heterojunction Polymer Solar Cells — ●JOACHIM LOOS
SKM-SYOP 1.3	Mon	11:30–12:00	TRE Ma	Reliable prediction of charge transfer excitations using optimally tuned range-separated hybrid functionals — ●LEEOR KRONIK
SKM-SYOP 1.4	Mon	12:00–12:30	TRE Ma	Charge separation and recombination in organic solar cells — ●JAMES DURRANT
SKM-SYOP 1.5	Mon	12:30–13:00	TRE Ma	Efficient and stable organic vacuum deposited p-i-n-type tandem solar cells — ●MARTIN PFEIFFER

Sessions

SKM-SYOP 1.1–1.5	Mon	10:30–13:00	TRE Ma	Elementary Processes in Organic Photovoltaics
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