

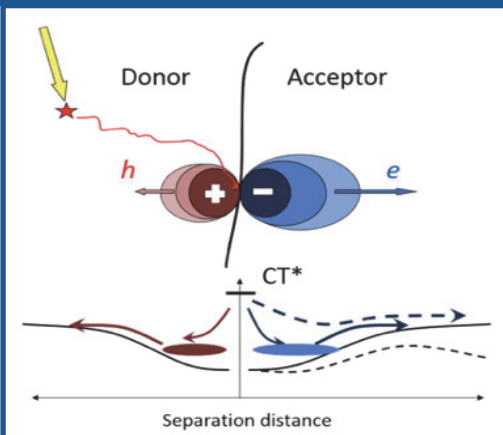
Chemistry Colloquium

Guest Speaker: Professor Jacques-E. Moser

Institute of Chemical Sciences & Engineering,
École Polytechnique Fédérale de Lausanne, Switzerland



“Dynamics of Charge Separation in Donor-Acceptor Heterojunction Solar”



Wednesday, November 8th, 12:00pm

Lander Auditorium,

140 Hutchison Hall

University of Rochester

Department of Chemistry

Abstract: The formation of bound interfacial electron-hole pairs and the subsequent charge recombination are among the dominant loss mechanisms hindering the performances of emergent solution-processed photovoltaic systems based on donor-acceptor heterojunctions.

Applying ultrafast time-resolved electroabsorption and THz spectroscopy techniques, we scrutinized the detailed mechanism of photoinduced charge separation in dye-sensitized solar cells, in small molecule- and conjugated polymer-based OPV systems, and in high-efficiency lead halide perovskite solar energy converters.

Spatio-temporal information regarding charge transfer exciton dissociation could be obtained, suggesting a unified picture for free carrier generation and separation in all types of donor-acceptor heterojunction photovoltaic systems.

Host: Professor Katie Knowles

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