

nanoGe Fall Meeting19 (NGFM19)

#Exciup19. Excitonic up-downconversion

Berlin, Germany, 2019 November 6th - 7th

Conference Chairs: Bruno Ehrler and Akshay Rao

Conference Program

November 6th - Day 4 (Wednesday)	
	Plenary Session 5 Chair: Jacky Even Room: Plenum 09:00 - 09:30 <u>David Mitzi</u> (<i>Duke University</i>) 5-K1 Organic-Inorganic Perovskites: Unrivaled Versatility for Semiconductor Design and Fabrication
	Plenary Session 6 Chair: Erwin Reisner Room: Breakout 4 09:00 - 09:30 <u>Jenny Zhang</u> (<i>Department of Chemistry, University of Cambridge - UK</i>) 6-K1 Semi-artificial Photosynthesis: a Platform for Studying and Wiring Photosynthesis
	Exciup 1.1 Chair: Bruno Ehrler Room: Breakout 5 09:30 - 10:00 <u>Richard Friend</u> (<i>Cavendish Laboratory, Department of Physics, University of Cambridge, UK</i>) 1.1-I1 New materials for singlet exciton fission to triplet pairs 10:00 - 10:30 <u>Benjamin Daiber</u> (<i>Center for Nanophotonics, AMOLF, Science Park 104, The Netherlands</i>), Koen v.d. Hoven, 1.1-O1 Joris Y. Bodin, Stefan Luxembourg, Moritz Futscher, Bruno Ehrler Efficiency Potential and Application of Singlet Fission Enhanced Silicon Solar Cells using Different Energy Transfer
10:30 - 11:00	Coffee Break
	Exciup 1.2 Chair: Timothy Schmidt Room: Breakout 5 11:00 - 11:30 <u>Raj Pandya</u> (<i>Optoelectronics Group, Cavendish Laboratory, University of Cambridge, UK.</i>), Akshay Rao 1.2-O1 Optical Projection and Spatial Separation of Spin Entangled Triplet-Pairs from the S1 (21Ag-) State of Pi-Conjugated Systems 11:30 - 12:00 <u>Xiaoyang Zhu</u> (<i>Department of Chemistry, Columbia University, New York, New York 10027, United States</i>) 1.2-I1 Understanding and Controlling the Triplet Pair States in Singlet Fission
12:00 - 13:30	Lunch
	Exciup 1.3 Chair: Artem Bakulin 14:00 - 14:15 <u>David Jones</u> (<i>School of Chemistry, Bio21 Institute, University of Melbourne, , Parkville, VIC 3010, Australia.</i>) 1.3-O1 Non-traditional Singlet Fission Materials 14:15 - 14:30 <u>Elham M. Gholizadeh</u> (<i>PhD student</i>), Timothy Schmidt 1.3-O2 Oxygen-Enhanced Upconversion of near Infrared Light from Below the Silicon Band Gap 14:30 - 15:00 <u>Ferdinand Grozema</u> (<i>Department of Chemical Engineering, Delft University of Technology, The Netherlands</i>) 1.3-I1 Triplet Dynamics in Perylenediimides

15:00 - 15:30	<u>Luis Campos</u> (<i>Department of Chemistry, Columbia University, New York, New York 10027, United States</i>)
1.3-I2	Materials Design for Third Generation Solar Cells
15:30 - 16:00	Coffee Break
	Exciup 1.4 Chair: Artem Bakulin
16:00 - 16:30	<u>Alexandr Zaykov</u> (<i>Institute of Organic Chemistry and Biochemistry of the CAS</i>), Josef Michl, Zdeněk Havlas, Eric Buchanan, Milena Jovanović
1.4-O1	Singlet Fission: Chromophores for Exciton Downconversion
November 7th - Day 5 (Thursday)	
	Exciup 2.1 Chair: Luis Campos Room: Breakout 5
09:00 - 09:30	<u>Kazuhiko Seki</u> (<i>National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba Central 5, 1-1 Higashi, Tsukuba, Ibaraki 305-8565, Japan</i>), Tomoaki Yago, Ryuzi Katoh
2.1-O1	Diffusion-limited Geminate Delayed Fluorescence by Singlet Fission and Triplet Fusion
09:30 - 10:00	<u>Artem Bakulin</u> (<i>Department of Chemistry and Centre for Plastic Electronics, Imperial College London</i>)
2.1-I1	Carrier-Carrier vs Carrier-Phonon Interactions in Lead-halide Perovskite Materials: Role of Carrier Density, Nanoconfinement, and Surface Ligands
10:00 - 10:30	<u>Silvia Ferro</u> (<i>Institute AMOLF</i>), Bruno Ehrler
2.1-O2	Harnessing Singlet Fission for Perovskite Photovoltaic Applications
10:30 - 11:00	Coffee Break
	Exciup 2.2 Chair: Ferdinand Grozema Room: Breakout 5
11:00 - 11:30	<u>Jonas Sandby Lissau</u> (<i>SDU NanoSYD, Mads Clausen Institute, University of Southern Denmark</i>), Malika Khelfallah, Morten Madsen
2.2-O1	Routes towards Improved Solar Energy Conversion in Organic and Hybrid Solar Cells via Photon Upconversion
11:30 - 12:00	<u>Timothy Schmidt</u> (<i>ARC Centre of Excellence in Exciton Science, School of Chemistry, UNSW Sydney, Australia</i>)
2.2-I1	Photochemical upconversion and photovoltaics
12:00 - 13:30	Lunch
	Exciup 2.3 Chair: Ferdinand Grozema Room: Breakout 5
13:30 - 14:00	Sarah Wieghold, Alexander Bieber, Zachary VanOrman, <u>Lea Nienhaus</u> (<i>Florida State University</i>)
2.3-O1	NIR-to-visible Upconversion Sensitized by Bulk Lead Halide Perovskites
14:00 - 14:15	<u>Victor Gray</u> (<i>Department of Chemistry, Ångström Laboratory, Uppsala University</i>), Jesse Allardice, Simon Dowland, Zhilong Zhang, James Xiao, Neil Greenham, Akshay Rao
2.3-O2	Energetic Dependence of Triplet Energy Transfer to PbS Quantum Dots for Singlet-Fission Based Photo-multiplication
14:15 - 14:30	<u>Sourav Maiti</u> (<i>Optoelectronic Materials Section, Department of Chemical Engineering, Delft University of Technology, The Netherlands.</i>), Silvia Ferro, Benjamin Daiber, Alyssa van den Boom, Sidharam Pujari, Han Zuilhof, Bruno Ehrler, Sachin Kinge, Laurens D. A. Siebbeles
2.3-O3	Dynamics of Singlet Fission in Tetracene and Triplet Transfer to Silicon
14:30 - 14:45	Frederik Eistrup, Klaus Schwarzburg, Sergiu Levenco, Dennis Friedrich, Thomas Unold, Klaus Lips, Eva Unger, <u>Rowan MacQueen</u> (<i>Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany</i>)
2.3-O4	Thin film halide perovskite as a triplet fusion sensitizer: present status and open questions
14:45 - 15:15	<u>Felix Castellano</u> (<i>North Carolina State University</i>)
2.3-I1	Triplet Migration Across Quantum Dot-Molecular Interfaces

15:30 - 16:00	Coffee Break
17:00 - 19:00	Poster Session