nanoGe Fall Meeting19 (NGFM19)

#CharDy19. Charge Carrier Dynamics

Berlin, Germany, 2019 November 4th - 5th
Conference Chairs: Marcus Scheele, Vanessa Wood and Maksym Yarema

Conference Program

November 4th - Day 2 (Monday)	
	Plenary Session 1 Chair: Roel van de Krol Room: Plenum
09:00 - 09:30 1-K1	Daniel Nocera *(Harvard University)* Sustainable and Renewable Carbon and Nitrogen Cycles for Fuel and Crop Production
	Plenary Session 2 Chair: Cristiane Morais Smith Room: Breakout 1
09:00 - 09:30 2-K1	Efrat Lifshitz *(Schulich Faculty of Chemistry, Solid State Institute, Russell Berrie Nanotechnology Institute and the Helen Diller Quantum Information Center; Technion, Haifa, Israel)*, Maksym Kovalenko, Andrew Rappe The Effect of Magnetism on the Optical Properties of Bulk and Confined Perovskite Structures
	CharDy 1.1 Chair: Vanessa Wood Room: Breakout 2
09:30 - 10:00 1.1-I1	Dmitri Talapin *(Department of Chemistry, University of Chicago, Chicago, Illinois 60637, USA)* Electronic Coupling and Transport in Non-covalent Inorganic Nanoscale Assemblies
10:00 - 10:30 1.1-I2	Bertille martinez, Clement Livache, Charlie Greboval, Audrey Chu, nicolas goubet, Emmanuel Lhuillier *(Sorbonne Université, CNRS, Institut des NanoSciences de Paris, INSP, F-75005 Paris, France.)* Designing Photovoltaic Devices Using HgTe Nanocrystals for SWIR and MWIR Detection
10:30 - 11:00	**Coffee Break**
	CharDy 1.2 Chair: Iwan Moreels Room: Breakout 2
11:00 - 11:30 1.2-I1	Frank Schreiber *(University of Tuebingen, Germany)* Coupled Organic-Inorganic Nanostructures (COINs): From Complex Structure Formation to Advanced Functional Properties
11:30 - 12:00 1.2-O1	Arianna Marchioro *(Laboratory for fundamental BioPhotonics, Ecole Polytechnique Fédérale de Lausanne, 1015 Lausanne, Switzerland)*, Marie Bischoff, Sylvie Roke Surface Characterization of Colloidal Nanoparticles by Second Harmonic Scattering: Surface Potential and Interfacial Water Order
12:00 - 13:30	**Lunch**
	CharDy 1.3 Chair: Marcus Scheele Room: Breakout 2
13:30 - 14:00 1.3-I1	Sabrina Disch *(Department für Chemie, Universität zu Köln)* Spatially Resolved Magnetization and Spin Disorder in Magnetic Nanoparticles

14:00 - 14:30 1.3-I2	Ali Khan, Valerio Pinchetti, Ivo Tanghe, Zhiya Dang, Beatriz Martín-García, Zeger Hens, Dries Van Thourhout, Pieter Geiregat, Sergio Brovelli, Iwan Moreels *(Department of Chemistry, Ghent University, Krijgslaan 281-S3, 9000 Ghent, Belgium)* Silver Doping in Cadmium Chalcogenide Colloidal Nanoplatelets
14:30 - 15:00 1.3-O1	Maria Wächtler *(Leibniz Institute of Photonic Technology)* Charge-separation in Ni-tipped CdSe@CdS Nanorods for Hydrogen Evolution
15:30 - 16:00	**Coffee Break**
	CharDy 1.4 Chair: Maksym Yarema Room: Breakout 2
16:00 - 16:30 1.4-I1	Matthias Wuttig *(RWTH Aachen University - Germany)* Phase Change Materials by Design: Taming Bond No. 6
16:30 - 17:00 1.4-I2	Maria Ibáñez *(IST Austria)* High-Performance Thermoelectric Nanocomposites from Nanocrystal Building Blocks
November 5th - Day 3 (Tuesday)	
	Plenary Session 3 Chair: Marcus Scheele Room: Plenum
08:30 - 09:00 3-K1	William Tisdale *(Massachusetts Institute Of Technology)* Nonequilibrium Dynamics of Excitons and Charges in Semiconductor Nanomaterials
	Plenary Session 4 Chair: Pablo P. Boix Room: Breakout 4
08:30 - 09:00 4-K1	Juan Bisquert *(Universitat Jaume I, Institute of Advanced Materials (INAM) - Spain)* Understanding Time Scales of Ionic and Electronic Phenomena in Perovskite Solar Cells
	CharDy 2.1 Chair: Marcus Scheele Room: Breakout 2
09:00 - 09:30 2.1-I1	David Cahen *(Weizmann Institute and Bar-Ilan University)* Proteins can be “Good” Electronic Conductors !
09:30 - 10:00 2.1-I2	Mathieu Luisier *(Swiss Federal Institute of Technology (ETH) Zurich)*, Aron Szabo, Cedric Klinkert, Christian Stieger, Martin Rau, Tarun Agarwal, Youseung Lee Carrier Transport in 2-D Materials: an Ab Initio Study
10:00 - 10:15 2.1-O1	Raj Pandya *(Optoelectronics Group, Cavendish Laboratory, University of Cambridge, UK.)*, Akshay Rao Ultrafast Long-Range Energy Transport via Strong Light-Matter Coupling in Organic Semiconductor Films
10:15 - 10:30 2.1-O2	Oskar Sandberg *(Swansea University, Department of Physics, Swansea, United Kingdom.)*, Kristofer Tvingstedt, Paul Meredith, Ardalan Armin A Theoretical Perspective on Transient Photovoltage and Charge Extraction Techniques
10:30 - 11:00	**Coffee Break**
	CharDy 2.2 Chair: Vanessa Wood Room: Breakout 2
11:00 - 11:30 2.2-I1	Jenny Nelson *(Department of Physics and Centre for Plastic Electronics, Imperial College London, London, SW7 2AZ, UK.)* Charge Carrier Dynamics at Molecular Heterojunctions in Organic Photovoltaic and Photocatalytic Systems

11:30 - 11:45 2.2-O1	Stefan Zeiske *(Sêr Cymru Chair in Sustainable Advanced Materials Department of Physics, Swansea University, Singleton Park Swansea SA2 8PP)*, Oskar Sandberg, Nasim Zarrabi, Paul Meredith, Ardalan Armin Quantifying Trap-assisted Recombination in Thin Film Solar Cells from Intensity Dependent Photocurrent Measurements
11:45 - 12:00 2.2-O2	Ankita Kolay *(Department of Chemistry, Indian Institute of Technology Hyderabad, Kandi, Sangareddy)*, Melepurath Deepa Nickel Oxide Based Photocathode and Selenium Nanowires Coated Photoanode for a Highly Efficient Tandem Quantum Dot Solar Cell
12:00 - 13:30	**Lunch**
	CharDy 2.3 Chair: Jenny Nelson Room: Breakout 2
13:30 - 14:00 2.3-I1	Grigorios Itskos *(Experimental Condensed Matter Physics Lab, Department of Physics, University of Cyprus)* Photophysics and Optoelectronic Applications of Lead Halide Perovskite Nanocrystals
14:00 - 14:30	
14:30 - 14:45 2.3-O1	Hannes Hempel *(Department Structure and Dynamics of Energy Materials, Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany)*, Andrei Petsiu, Martin Stolterfoht, Pascal Becker, Dieter Neher, Rainer Eichberger, Thomas Unold Limits of Charge Carrier Transport in Halide Perovskites Revealed by Optical-Pump Terahertz-Probe Spectroscopy
14:45 - 15:00 2.3-O2	Katarzyna Pydzinska *(Adam Mickiewicz University in Poznan, Faculty of Physics, Uniwersytetu Poznanskiego 2, 61-614 Poznan, Poland.)*, Jesus Idigoras, Juan Anta, Victoriia Durshliak, Marcin Ziółek Charge Dynamics, Absorption and Emission Spectra of Triple Cation Perovskite Solar Cells under Different Place of Excitation, Illumination and Applied Potential.
15:00 - 15:30 2.3-I2	Thomas Kirchartz *(IEK-5 Photovoltaics, Forschungszentrum Jülich)* Combination of Transient and Steady-state Photoluminescence for the Characterization of Halide Perovskite-based Layer Stacks
15:30 - 16:00	**Coffee Break**
16:00 - 17:00	**CharDy 2.4**
17:00 - 19:00	**Poster Session**

Poster Contribution

345	Marie Bischoff *(Laboratory for fundamental BioPhotonics, Ecole Polytechnique Fédérale de Lausanne, 1015 Lausanne, Switzerland)*, Arianna Marchioro, Sylvie Roke Polarimetric Angle-Resolved Second Harmonic Scattering of Colloidal TiO2 Nanoparticles in Aqueous Environments
366	Florian Grassl *(University of Augsburg, Institute of Physics, Germany)*, Shaimaa Abdalbaqi, André Maier, Marcus Scheele, Wolfgang Brütting Coupled organic-inorganic nanostructures with mixed linker molecules
373	Dominik Bauer *(Swiss Federal Institute of Technology (ETH) Zurich)*, Teute Bunjaku, Mathieu Luisier Electronic and Thermal Characterization of Lithiated Silicon Nanowires
382	Modestos Athanasiou *(Experimental Condensed Matter Physics Lab, Department of Physics, University of Cyprus, 1678 Cyprus)*, Paris Papagiorgis, Andreas Manoli, Caterina Bernasconi, Nicolas Poyiatzis, Pierre-Marie Coulon, Philip Shields, Maryna Bodnarchuk, Maksym Kovalenko, Tao Wang, Grigorios Itskos Dr.
395	Dorothea Scheunemann *(Linköping University, Sweden)*, Martijn Kemerink Rubbing and drawing: generic ways to improve the thermoelectric power factor of organic semiconductors?
415	Deepika Poonia *(Optoelectronic Materials Section, Faculty of Applied Sciences, Delft University of Technology, Van der Maasweg 9, 2629 HZ Delft, The Netherlands)* Dynamics of photogenerated charge carriers and excitons in transition metal dichalcogenides
425	Sebastian Wilken *(Linköping University, Sweden)*, Tanvi Upreti, Staffan Dahlström, Gustav Persson, Martijn Kemerink Kinetic Monte Carlo Model of an Organic Solar Cell Calibrated by Experiments
432	Jonas Nekrasovas *(Institute of Chemical Physics Vilnius University, Saule˙tekio al.3, Vilnius LT-10257, Lithuania)*, Šarūnė Daškevičiūtė, Marytė Daškevičienė, Vytautas Getautis, Valentas Gaidelis, Vygintas Jankauskas Charge-transporting Properties of Enamine Based Fluorene Derivatives as Hole Transporting Materials for PSC