

## nanoGe Fall Meeting 2018 (FallMeeting18)

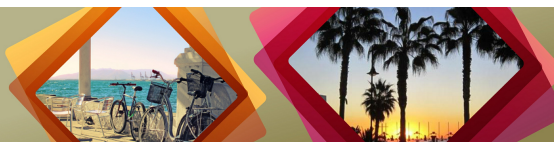
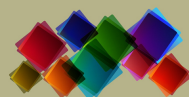
### S3 Fundamental Processes in Semiconductor Nanocrystals

Torremolinos, Spain, 2018 October 22nd - 23rd

Conference Chairs: Tianquan Lian and Mischa Bonn

### Conference Program

October 22nd - Day 1 (Monday)	
	<p><b>Plenary session 1</b> Chair: Mischa Bonn Room: Mediterraneo ABC</p>
09:00 - 09:30 1-K1	<p><u>Victor Klimov</u> (<i>Los Alamos National Laboratory, Los Alamos, New Mexico 87545, USA</i>) Colloidal Quantum Dot Lasing: Historical Perspective and Recent Progress</p>
	<p><b>Plenary Session 2</b> Chair: Kevin Sivula Room: Torremolinos AB</p>
09:00 - 09:30 2-K1	<p><u>Yun Jeong Hwang</u> (<i>Korea Institute of Science and Technology (KIST)</i>), Byoun Koun Min, Hyeong-Suk Oh Electrochemical Conversion of CO<sub>2</sub> toward Valuable Chemicals for Solar-to-Chemical Conversion Application</p>
	<p><b>NCFun S3.1</b> Chair: Tianquan Lian Room: Torremolinos AB</p>
09:30 - 10:00 S3.1-11	<p><u>Tianquan Lian</u> (<i>Department of Chemistry, Emory University, 1515 Dickey Drive NE, Atlanta, Georgia 30322, USA</i>) Exciton Structure and Dynamics in 2D Colloidal Quantum Wells</p>
10:00 - 10:30 S3.1-12	<p><u>Uri Banin</u> (<i>Institute of Chemistry and the Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem</i>) Hybrid Semiconductor-Metal Nanoparticles as Photocatalysts</p>
10:30 - 11:00	<p><b>Coffee Break</b></p>
	<p><b>NCFun S3.2</b> Chair: Tianquan Lian Room: Torremolinos AB</p>
11:00 - 11:30 S3.2-11	<p><u>Daniel Vanmaekelbergh</u> (<i>Universiteit Utrecht</i>), Freddy Rabouw, Federico Montanarella Delayed Exciton Emission in Low-Dimensional CdSe Nanocrystals</p>
11:30 - 12:00 S3.2-12	<p><u>Matthew Beard</u> (<i>National Renewable Energy Laboratory, Golden, Colorado, USA</i>) Multiple Exciton Generation in Semiconductor Nanocrystals</p>
12:00 - 12:30 S3.2-O1	<p><u>Celso de Mello Donega</u> (<i>Universiteit Utrecht</i>), Chenghui Xia, Naomi Winckelmans, Hans Gerritsen, Sara Bals NIR-Emitting CuInS<sub>2</sub>/ZnS Dot-in-Rod Colloidal Heteronanorods</p>
12:30 - 14:30	<p><b>Lunch</b></p>
	<p><b>NCFun S3.3</b> Chair: Gordana Dukovic Room: Torremolinos AB</p>
14:30 - 15:00 S3.3-O1	<p><u>L. Christiaan Post</u> (<i>Condensed Matter and Interfaces, Debye Institute for nanomaterials science, Utrecht University</i>), Tao Xu, Nathali A. Franchina Vergel, Yannick Lambert, Francois Vaurette, Ludovic Desplanque, Xavier Wallart, Bruno Grandidier, Christophe Delerue, Daniel A. M. Vanmaekelbergh Nano Perforation of InGaAs Quantum wells: a Lithography Route Towards III-V Semiconductors with Honeycomb Nanogeometry</p>



- 15:00 - 15:30 Florian Enders, Peng Zeng, Trevor A. Smith, Jannika Lauth, Laurens D. A. Siebbeles, Arne Budweg, Daniele S3.3-O2 Brida, Klaus Boldt (*University of Konstanz*)  
Charge Localisation at Strained, Axial Heterojunctions in 1D Semiconductor Nanocrystals
- 15:30 - 16:00 Omri Bar-Elli (*Department of Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100, S3.3-O3 Israel*), Dan Steinitz, Gaoling Yang, Ron Tenne, Anastasia Ludwig, Yung Kuo, Antoine Triller, Shimon Weiss, Dan Oron  
Detecting Short Voltage Pulses Using Single Quantum Dots Designed for Action Potential Sensing
- 16:00 - 16:30 Christian Klinke (*Institute of Physical Chemistry, University of Hamburg*) S3.3-I1  
Two-Dimensional Nanostructures: Synthesis and Optoelectronic Transport
- 16:30 - 17:00 Lilac Amirav (*Schulich Faculty of Chemistry, Technion – Israel Institute of Technology*) S3.3-I2  
Sculpting Photocatalysts on the Nano Scale

### October 23rd - Day 2 (Tuesday)

#### NCFun S3.4

Chair: Mischa Bonn  
Room: Torremolinos AB

- 09:00 - 09:30 Dan Oron (*Department of Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100, Israel*) S3.4-I1  
Luminescence Upconversion in Designer Semiconductor Nanocrystals
- 09:30 - 10:00 Enrique Canovas (*IMDEA Nanoscience*), Hai Wang, Mischa Bonn S3.4-I2  
Hot Electron Transfer Efficiency at Quantum Dot-Oxide Interfaces
- 10:00 - 10:30 Christophe Delerue (*IEMN, UMR-CNRS 8520, Villeneuve d'Ascq, France*) S3.4-I3  
Theory of Localized Surface Plasmon Resonance in Doped Semiconductor Nanocrystals

#### 10:30 - 11:00 Coffee Break

#### NCFun S3.5

Chair: Mischa Bonn  
Room: Torremolinos AB

- 11:00 - 11:30 Richard Schaller (*Department of Chemistry, Northwestern University, Evanston, IL 60208, USA*) S3.5-I1  
Ultrafast Structural Studies of Semiconductor Nanocrystals: Transient Disorder and Recrystallization
- 11:30 - 12:00 Sanford Ruhman (*Hebrew University of Jerusalem*), Efrat Lifshitz, Roi Baer, Tufan Ghosh S3.5-I2  
Spectator Exciton Unveils Spin Blockades in the Cooling of Hot Multi-Excitons
- 12:00 - 12:30 Majed CHERGUI (*Ecole Polytechnique Fédérale de Lausanne, Suisse*) S3.5-I3  
Charge Carrier and Phonon Dynamics in Transition Metal Oxide and in Lead-Halide Perovskite Nanoparticles

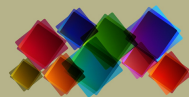
#### 12:30 - 14:30 Lunch

#### NCFun S3.6

Chair: Enrique Cánovas  
Room: Torremolinos AB

- 14:30 - 15:00
- 15:00 - 15:30 Gordana Dukovic (*University of Colorado Boulder, US*) S3.6-I1  
Excited State Processes in Semiconductor Nanocrystals and their relationships with Light-Driven Multi-Electron Catalysis

#### 17:30 - 19:00 Poster Session



## Poster Contribution

146	<u>Maria Wächtler</u> ( <i>Leibniz Institute of Photonic Technology</i> ), Lilac Amirav Impact of composition and size of the metal tip on charge separation and hydrogen evolution in metal-tipped CdSe@CdS nanorods
313	<u>Ivo Tanghe</u> ( <i>Photonics Research Group, Ghent University, Belgium</i> ), Kai Chen, Renu Tomar, Shalini Singh, Iwan Moreels, Justin M. Hodgekiss, Dries Van Thourhout, Zeger Hens, Pieter Geiregat Ultrafast Phase Modulation in CdSe Colloidal Quantum Wells
323	<u>Franco V. A. Camargo</u> ( <i>IFN-CNR, Dipartimento di Fisica, Piazza L. da Vinci 32, 20133 Milano, Italy</i> ), Tetsuhiko Nagahara, Yuval Ben-Shahar, Uri Banin, Giulio Cerullo Two-Dimensional Electronic Spectroscopy of CdSe Nanorods
328	<u>Simon Schneider</u> ( <i>Institut für Physikalische Chemie, Universität Hamburg</i> ), Tobias Kipp, Christian Strelow, Alf Mews Fluorescence of Individual Semiconductor- Metal Hybride Nanoparticles