

International Conference

nanoGe September Meeting 2017 (SeptemberMeeting17)

SE2: Opto-electronics of 2-D Nanostructured Semiconductors: Parabolic vs. Linear Dirac Bands

Barcelona, Spain, 2017 September 6th - 8th

Conference Chairs: Cherie Kagan and Daniel Vanmaekelbergh

Conference Program

September 6th - Day 3 (Wednesday)	
16:30 - 18:05	Registration 7-8 Sept
September 7th - Day 4 (Thursday)	
07:30 - 08:45	Registration
08:45 - 09:00	Opening
	SE2.1 Chair: Daniel Vanmaekelbergh
09:00 - 09:35 SE2.1-I1	<u>Christophe Delerue</u> (<i>IEMN - UMR 8520</i>), Athmane Tadjine Electronic structure and optical properties of 2D nanostructured semiconductors
09:35 - 09:45	Discussion
09:45 - 10:20 SE2.1-I2	<u>Christiane deMorais</u> Graphene: the good, the bad, the nano & the pseudo
10:20 - 10:30	Discussion
10:30 - 11:05 SE2.1-I3	<u>Efrat Lifshitz</u> (<i>Israel Institute of Technology, Haifa, Israel</i>) Rashba effect as a source for a long carrier diffusion length in nanostructures assembly and bulk halide perovskites
11:05 - 11:15	Discussion
11:15 - 11:45	Coffee Break

11:45 - 12:20 SE2.1-I4	<u>Dmitri Talapin</u> (<i>University of Chicago</i>) Colloidal nanocrystals for thin-film optoelectronics
12:20 - 12:30	Discussion
12:30 - 13:05 SE2.1-I5	<u>Alberto Morpurgo</u> (<i>University of Genève, CH</i>) Transport through ionic liquid gated 2D materials
13:05 - 13:15	Discussion
13:15 - 15:00	Lunch
	SE2.2 Chair: Christopher B. Murray
15:00 - 15:35 SE2.2-I1	<u>Iwan Moreels</u> (<i>Istituto Italiano di Tecnologia (IIT)</i>) Band Structure Engineering in Core/Shell and Core/Crown CdSe-Based Nanoplatelets
15:35 - 15:45	Discussion
15:45 - 16:20 SE2.2-I2	<u>Marlou Slot</u> , Thomas Gardenier, Peter Jacobse, Guido van Miert, Sander Kempkes, Stephan Zevenhuizen, Cristiane Morais Smith, Daniel Vanmaekelbergh, Ingmar Swart Experimental realization and characterization of an electronic Lieb lattice
16:20 - 16:30	Discussion
16:30 - 16:45 SE2.2-O1	<u>Christiaan Post</u> Fabrication of honeycomb semiconductors using electron beam lithography
16:45 - 17:00	
17:00 - 18:30	Poster exhibition
20:00 - 22:00	Social Dinner
September 8th - Day 5 (Friday)	
	SE2.3 Chair: Dmitri Talapin
09:00 - 09:35 SE2.3-I1	<u>Christopher B. Murray</u> (<i>Department of Chemical & Biological Engineering, Drexel University</i>), Yaoting Wu, Siming Li, Blaise Fleury, Stan Najmr, Natalie Gogtsi, Cherie R. Kagan, Jason B. Baxter Building modular 2D systems through nanocrystal assembly and surface exchange.
09:35 - 09:45	Discussion

09:45 - 10:20 SE2.3-I2	<u>Frank Wise</u> (<i>Cornell University US</i>) Role of Disorder in Atomically-Coherent Quantum-Dot Solids
10:20 - 10:30	Discussion
10:30 - 11:05 SE2.3-I3	<u>Steven G. Louie</u> (<i>University of California at Berkeley and Lawrence Berkeley National Laboratory</i>) Quantum Phenomena in Atomically Thin Two-Dimensional Materials
11:05 - 11:15	Discussion
11:15 - 11:45	Coffee Break
11:45 - 12:20 SE2.3-I4	<u>Laurens Siebbeles</u> (<i>Chemical Engineering, Optoelectronic Materials, TU Delft</i>) Effects of Nanogeometry on Carrier Multiplication in 2D Lead Chalcogenide Materials
12:20 - 12:30	Discussion
12:30 - 13:05	
13:05 - 13:15	Discussion
13:15 - 15:00	Lunch
	SE2.4 Chair: Cherie Kagan
15:00 - 15:15 SE2.4-O1	<u>Miri Kazes</u> (<i>School of materials science and engineering, Tsinghua University</i>), Songping Luo, Dan Oron, Hong Lin Strain Induced Type-II Band Alignment Control in CdSe Nanoplatelets / ZnS Sensitized Solar Cells
15:15 - 15:30 SE2.4-O2	<u>Udayabhaskararao Thumu</u> (<i>1Department of Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100, Israel.</i>), Lothar Houben, Ayelet Teitelboim, Rafal Klajn, Thomas Altantzis, Marc Coronado-Puchau, Judit Langer, Ronit Popovitz-Biro, Luis M. Liz-Marzán, Lela Vuković, Petr Král, Sara Bals, Rafal Klajn New approaches to control the self-assembly of gold nanoparticles and their surface-enhanced Raman scattering properties
15:30 - 15:45 SE2.4-O3	<u>Jannika Lauth</u> (<i>Delft University of Technology, Department of Chemical Engineering</i>), Francisco Manteiga Vázquez, Ryan W. Crisp, Sachin Kinge, Arjan J. Houtepen, Laurens D. A. Siebbeles Tuning the Photoluminescence and Carrier Multiplication Properties in Ultrathin 2D PbS Nanoplatelets



15:45 - 16:00 SE2.4-O4	<u>Juan Ignacio Climente</u> (<i>Universidad Jaume I</i>), Fernando Rajadell, Josep Planelles, Jose Luis Movilla Excitons in core-only, core-shell and core-crown nanoplatelets: lateral confinement and correlation
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16:00 - 16:15	Closing
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