nanoGe Fall Meeting 2018 (FallMeeting18)

S6 Solution-based Two-dimensional Nanomaterials Sol2D

Torremolinos, Spain, 2018 October 24th - 26th
Conference Chairs: Christophe Delerue, Sandrine Ithurria and Christian Klinke

Conference Program

October 24th - Day 3 (Wednesday)	
	Sol2D S6.1 Chair: Christian Klinke
14:30 - 15:00 S6.1-I1	David Norris *(Optical Materials Engineering Laboratory, ETH Zürich, Swiss)* The Growth Mechanism of Semiconductor Nanoplatelets
15:00 - 15:30 S6.1-I2	Efrat Lifshitz *(aculty of Chemistry, Solid State Institute, Russell Berrie Nanotechnology Institute and Grand Technion Energy Program, Technion – Israel Institute of Technology, Haifa, 32000, Israel)* Magneto-Optical Properties of Two-Dimensional Semiconductors: Transition Metal Phosphorous Trichalcogenides, Indium Chacogenides and Magnetically Doped Colloidal Nanoplatelets
15:30 - 16:00 S6.1-I3	Alexander Achtstein *(Technical University of Berlin)*, Riccardo Scott, Jan Heckmann, Anatol Prudnikau, Artsiom Antanovich, Nina Owschimikow, Nicolai Grosse, Mikhail Artemyev, Ulrike Woggon, Juan Climente Tuning the Photonic Properties of Colloidal Quantum Wells
16:00 - 16:30 S6.1-I4	Hilmi Volkan Demir *(Nanyang Technological University (NTU), Singapore)* Colloidal Photonics of Atomically Flat 2D Nanocrystals
16:30 - 17:00 S6.1-I5	Liangfeng Sun *(Department of Physics and Astronomy, Bowling Green State University, Bowling Green, Ohio 43403, United States)*, Zhoufeng Jiang, Antara Debnath Antu, Shashini Premathilka, Yiteng Tang, Ghadendra Bhandari, Kamal Subedi, Matthew Leopold, Nick Reilly, Simeen Khan, Douglas Dimick, Cody Stombaugh, Angelic Mandell, Yufan He, Peter Lu, Jianjun Hu, Andrey Voevodin, Ajit Roy, Paul Roland, Randy Ellingson, Joey Leffler, Alexey Zayak Synthesis and Optical Spectroscopy of Colloidal PbS Nanosheets
17:30 - 19:00	**Poster session**
October 25th - Day 4 (Thursday)	
	Plenary Session 5
09:00 - 09:30 5-K1	Maksym Kovalenko *(Institute of Inorganic Chemistry, Department of Chemistry and Applied Bioscience, ETH Zurich, 8093 Zurich, Switzerland)* Colloidal Nanocrystals of APbX3 Perovskites [A=Cs+, CH(NH2)2+, X=Cl-, Br-, I-]: Surface Chemistry, Self-Assembly and Potential Applications
	Sol2D S6.2 Chair: Sandrine Ithurria
09:30 - 10:00 S6.2-O1	Alf Mews *(Institute of Physical Chemistry, University of Hamburg)*, Monika Kobylinski, Charllotte Ruhmlieb, Vi Pham, Jan Siebels, Andreas Kolditz Synthesis and Electrical Properties of Photoactive Two Dimensional SnS Nanosheets
10:00 - 10:30 S6.2-I1	William Buhro *(Department of Chemistry, Washington University, St. Louis, MO 63119, USA)* Facile Surface Exchanges in 2D CdSe Nanocrystals
10:30 - 11:00	**Coffee Break**
	Sol2D S6.3 Chair: Christophe Delerue

11:00 - 11:30 S6.3-I1	Gabriel Bester *(Universität Hamburg)* Atomistic Theory of Excitonic Effects in 2D Materials
11:30 - 12:00 S6.3-O1	Shalini Singh *(Physics and Chemistry of Nanostructures, Ghent University, 9000 Ghent, Belgium)*, Renu Tomar, Stephanie ten Brinck, Jonathan De Roo, Pieter Geiregat, José C. Martins, Ivan Infante, Zeger Hens The Surface Chemistry of Colloidal II-VI Two-Dimensional Nanoplatelets
12:00 - 12:30 S6.3-I2	Anna Rodina *(Ioffe Institute)* Spin-Dependent Optical Properties of CdSe Nanoplatelets
12:30 - 14:30	**Lunch**
	Sol2D S6.4 Chair: Christian Klinke
14:30 - 15:00 S6.4-I2	Daniel Vanmaekelbergh *(Universiteit Utrecht)*, Joep Peters, Maryam Alimoradi Jazi, Sophia Buhbut-Sinai, Sara Bals, Giuseppe Soligno 2-D Silicene Honeycomb Superlattices from PbSe Nanocrystals by Nanocrystal Assembly at an Interface Followed by Oriented Attachment
15:00 - 15:30 S6.4-O2	Marion Dufour *(Laboratoire de Physique et d'Etude des Matériaux, PSL Research University, CNRS UMR 8213, UPMC Sorbonne Université, ESPCI Paris, 10 rue Vauquelin, 75005 Paris, France)*, Violette Steinmetz, Eva Izquierdo, Thomas Pons, Nicolas Lequeux, Emmanuel Lhuillier, Laurent Legrand, Maria Chamarro, Thierry Barisien, Sandrine Ithurria Engineering Bicolor Emission in 2D Core/Crown CdSe/CdSe1–xTex Nanoplatelet Heterostructures Using Band-Offset Tuning
15:30 - 15:45 S6.4-O3	Sushma Yadav *(Institute of Physical Chemistry and Electrochemistry, Leibniz Universität Hannover, Germany)*, Ajeet Singh Singh, Sameer Sapra Sapra, Nadja Bigall Surface Dependent Charge Carrier Dynamics in Core/Shell Nanoplatelets
15:45 - 16:00 S6.4-O4	Anja Schlosser *(Institute of Physical Chemistry and Electrochemistry, Leibniz-Universität Hannover, Callinstr. 3A, D-30167 Hannover)*, Jan Frederick Miethe, Franziska Lübkemann, Jan Gerrit Eckert, Lea Celiné Meyer, Nadja-Carola Bigall 3D Assemblies of CdSe Nanoplatelets for Application in Photoelectrochemical Sensing
16:00 - 16:30 S6.4-O1	Aurelio Rossinelli *(4Optical Materials Engineering Laboratory, ETH Zurich, 8092 Zurich, Switzerland)*, Andreas Riedinger, Philippe Knüsel, Patricia Marqués Gallego, Felipe Antolinez, David Norris Color-Tunable CdSe-Based Core/Shell Nanoplatelets
16:30 - 17:00 S6.4-I1	Emilio Perez *(IMDEA Nanociencia)* From Liquid-Phase Exfoliated 2D Materials to Functioning Devices
October 26th - Day 5 (Friday)	
	Plenary session 6
09:00 - 09:30 6-K1	Marina Leite *(University of Maryland)* Probing Solar Cells at the Nanoscale through Real-Time Functional Imaging
	Sol2D S6.5
09:00 - 09:30 S6.5-I1	Liberato Manna *(Department of Nanochemistry, Istituto Italiano di Tecnologia,Via Morego 30, 16163 Genova (Italy))* Halide Perovskites Nanocrystals: Synthesis, Transformations and their Application in Devices
09:30 - 10:00 S6.5-I2	Laurens Siebbeles *(Opto-electronic materials section, Department of Chemical Engineering, Faculty of Applied Sciences, Delft University of Technology)* Ultrafast Dynamics of Charge Carriers and Excitons in 2D Metal Chalcogenide Materials
10:00 - 10:15 S6.5-O1	Bas Salzmann *(Universiteit Utrecht)*, Christiaan Post, Daniel Vanmaekelbergh CdSe Nanorings: Synthesis and Opto-Electronic Properties

10:15 - 10:30 S6.5-O2	Joep peters *(Universiteit Utrecht)*, Thomas Altantzis, Sara Bals, Daniel Vanmaekelbergh Mono- and Multilayer Silicene-Type Honeycomb Lattices by Oriented Attachment of PbSe Nanocrystals: Synthesis, Structural Characterization, and Analysis of the Disorder.
	Sol2D S6.6 Chair: Christophe Delerue
11:00 - 11:30 S6.6-I1	Benoit Mahler *(ILM - Institut Lumière Matière, CNRS)* Colloidal Synthesis of WS2 Nanosheets: Chemical Control of Morphology and Crystal Structure.
11:30 - 11:45 S6.6-O1	Pengshang Zhou *(Physics and Chemistry of Nanostructures, Ghent University, 9000 Ghent, Belgium)*, Shalini Singh, Pieter Schiettecatte, Zeger Hens Synthesis of Colloidal Tungsten Diselenide (WSe2) Nanocrystals by Hot Injection Method
11:45 - 12:00 S6.6-O2	Bruce Parkinson *(Department of Chemistry, University of Wyoming, Laramie, WY, USA)*, John Hoberg New 2D Nanoporous Covalent Organic Framework Materials with Functionalized
12:00 - 12:30 S6.6-O3	Prabhuraj Balakrishnan *(Lancaster University, UK)*, Matthew J Fong, Christopher S woodhead, Ramon Bernardo Gavito, Robert J Young Efficient Light Emission from MoS2 Flakes by in-solution Superacid Treatment
12:30 - 14:30	**Lunch**
	Sol2D S6.7 Chair: Sandrine Ithurria
14:30 - 15:00 S6.7-I1	Richard Schaller *(Argonne National Laboratory, Lemont, Illinois, United States)* Colloidal Quantum Wells for Energy Manipulations on Fast Timescales
15:00 - 15:30 S6.7-O1	Jannika Lauth *(Carl von Ossietzky University Oldenburg)*, Michele Failla, Francisco Manteiga Vázquez, Qianli Yu, Eugen Klein, Ryan Crisp, Christian Klinke, Sachin Kinge, Arjan Houtepen, Laurens Siebbeles Colloidal Two-Dimensional PbS Nanosheets and Ultrathin PbS Nanoplatelets – High Mobility vs. Photoluminescence Properties
15:30 - 16:00 S6.7-I2	Celso de Mello Donega *(Universiteit Utrecht)*, Anne Berends, Ward van der Stam Ultrathin Colloidal Binary and Ternary Copper Chalcogenide Nanosheets
16:00 - 16:15 S6.7-O2	Alejandro Molina-Sánchez *(Institute of Materials Science of the University of Valencia (ICMUV))* Excitonic States in Semiconducting Two-Dimensional Perovskites
16:15 - 16:30 S6.7-O3	Aniket S. Mule *(Optical Materials Engineering Laboratory, ETH Zurich, 8092 Zurich, Switzerland)*, Simon F. Solari, Aurelio A. Rossinelli, Philippe N. Knüsel, Sergio Mazzotti, Marianne Aellen, David J. Norris Synthesis and Isolation of Discrete-Growing CdSe Nanocrystals

Poster Contribution

267	Fu Li *(Institute of Physical Chemistry, University of Hamburg, 20146 Hamburg, Germany)*, Mohammad Mehdi Ramin Moayed, Christian Klinke Shape and size control of the synthesis of 2D tin sulfide (SnS) nanosheets and electronic application