

Monday, May 19, 2014

08:45 – 9:00	Opening	
9:00 – 9:45	Louis Brus (plenary)	Nanoscience in Zero, One and Two Dimensions
9:45 – 10:00	Demetra Tsokkou	Investigating the Photophysics of PbS and PbS/CdS Core/Shell Quantum Dot Films Capped with Chalcogenidometalate Ligands
10:00–10:15	Sergii Yakunin	Photoconductivity of chalcogenidometalate-capped colloidal PbS nanocrystals
10:15–10:30	Andrey Rogach	Color emission tunability in flexible carbon dot based ionogels and light emitting devices
10:30–10:45	Christophe Lavenn	Atomically well-defined gold clusters: Oxidation reactions catalyzed by ultra-small gold core
10:45–11:15	Coffee Break	
11:15–11:45	Luigi Martiradonna (invited)	Inside Nature Materials – an editor's view
11:45–12:00	Klaus Boldt	Engineering of the Electronic Structure of Core/Shell Quantum Dots by <i>in-situ</i> Alloying
12:00–12:15	Julia Pérez-Prieto	Non-template Synthesis of CH ₃ NH ₃ PbX ₃ Perovskite Nanoparticles
12:15–12:30	Peter Reiss	In situ X-ray study of the nucleation and growth of CZTS nanocrystals
12:30–12:45	Munish Chanana	Protein Coatings on Metal Nanoparticles: Making life easier!
12:45–13:00	Richard Capek	Influence of the Organic Chain Length of Ligands in Hot-Injection Synthesis of Colloidal Quantum Dots
13:00-14:30	Lunch	
14:30–15:00	Liberato Manna (invited)	Colloidal Inorganic Nanocrystals: from Synthesis, to Assembly, to the Study of their Transformations
15:00–15:15	Jonathan Owen	The Dynamic Stoichiometry of Metal Chalcogenide Nanocrystals
15:15–15:30	Cyril Chomette	Engineering new nanoparticles of unconventional morphology and functionality for directed assembly
15:30–15:45	Ajay Singh	Understanding Grain Growth Dynamics with Thermal Treatment of Compound Semiconductor Nanocrystals for Thin Film Photovoltaics
15:45–16:00	Philippe Tamarat	Magneto-optical spectroscopy of charged and neutral CdSe nanocrystals
16:00–16:30	Coffee Break	
16:30–17:00	Dmitri Talapin (invited)	When many nanocrystals work as a team: collective properties of nanocrystal solids
17:00–17:15	Jonathan Veinot	Using surface chemistry to exquisite tuning of the photoluminescent response of silicon nanocrystals.
17:15–17:30	Ivan Infante	The Fundamental Role of Quantum Chemistry in Explaining the Surface Chemistry of CdSe and PbSe Nanocrystals.
17:30–17:45	Matthias Pauly	Versatile large area alignment of anisotropic nanoparticles in Layer-by-Layer assembled films for plasmonics
17:45–18:00	Ward van der Stam	Self-Assembly of Colloidal Hexagonal Bipyramid- and Bifrustum-shaped ZnS Nanocrystals into Two-Dimensional Superstructures
18:00–18:15	Rainer Lechner	Crystal Structure within the Shell of PbS/CdS Core/Shell Nanocrystals Influences the Photoluminescent Emission
18:30–20:00	Dinner	
20:00–22:00	Poster Session A (Posters A1 – A45)	

Tuesday, May 20, 2014

9:00–9:45	Phillippe Guyot-Sionnest (plenary)	Intraband spectroscopy and electrochemistry with quantum dots. Towards the Infrared.
9:45–10:00	Carlo Giansante	Molecular-level control of polymer/nanocrystal interface towards efficient hybrid solar cells
10:00–10:15	Miguel Correa-Duarte	Nanoreactors for Simultaneous Remote Thermal-Activation and Optical Monitoring of Chemical Reactions
10:15–10:30	Katerina Soulantica	Epitaxial growth of self-organized metal nanocrystals on solid substrates
10:30–10:45	Marc Walter	Monodisperse Nanocrystals for Na-ion and Li-ion Battery Anodes: Nano vs. Bulk
10:45–11:15	Coffee Break	
11:15–11:45	Sandro Tedde (invited)	Organic photodetectors sensitized with PbS nanocrystals for near-infrared and X-Ray applications
11:45–12:00	Daniel Balazs	Reducing charge trapping in PbS colloidal quantum dot solids
12:00–12:15	Freddy Rabouw	Photonic effects on the Förster resonant energy transfer efficiency in doped nanocrystals
12:15–12:30	Takieddine Djebaili	Atomistic Simulations of the Surface Coverage of Large Gold Nanocrystals
12:30–12:45	Till Meiling	Photoluminescent carbon dots by a green microwave-assisted synthesis
12:45–13:00	Sotirios Christodoulou	Controlling the Emission Rate and Oscillation Strength via Shape-Control in 2D Colloidal Nanocrystals
13:00-14:30	Lunch	
14:30–15:00	Wolfgang Parak (invited)	Degradation of nanoparticles in biological environments
15:00–15:15	Paola Borri	Coherent Antistokes Raman Scattering Microscopy of Single Nanodiamonds
15:15–15:30	Michele Saba	Pt-decorated CdSe/CdS octapod nanocrystals for photocatalysis
15:30–15:45	Bruce Cohen	Weakly Luminescent Nanocrystals that are Exceptional Single-Particle Probes
15:45–16:00	Kevin Ryan	Controlled colloidal synthesis of Cu ₂ SnSe ₃ (CTSe) nanocrystals with linear and branched morphology
16:00–16:30	Coffee Break	
16:30–17:00	Delia Milliron (Invited)	Plasmonic metal oxide nanocrystals and their near infrared electrochromism
17:00–17:15	Kipp van Schooten	Spin-Dependent Light-Harvesting in Nanotetrapods by Controlling Electronic Trap States with Optically Detected Magnetic Resonance
17:15–17:30	Kui Yu	Colloidal quantum dots: the mechanism of precursor conversions at low temperature
17:30–17:45	Katharina Poulsen	Synthesis of NIR-Emitting Semiconductor Nanoparticles in a Continuous Flow Reactor
17:45–18:00	Max Burian	In-situ Synchrotron Studies of Colloidal Crystallization and the Influence of the Nanocrystal Shape
18:00-18:15	Maria A. Loi	Determination of the Electronic Energy Levels of Colloidal Quantum Dot Arrays using Field Effect Transistors
19:00-21:00	Gala-Dinner	

Wednesday, May 21, 2014		
9:00 – 9:30	Alexander Eφος (invited)	Dark and Photo-Conductivity in Ordered Array of Nanocrystals
9:30 – 9:45	Robert Seher	Continuous-flow setup for in-situ investigation of formation processes of colloidal semiconductor nanocrystals
9:45–10:00	Claudine Allen	Colloidal Quantum Rings
10:00–10:15	Oleksandr Voznyy	Engineering Colloidal Quantum Dot Solids within, and beyond, the Mobility-Invariant Regime
10:15–10:30	Jean-Francois Berret	The effects of aggregation and protein corona on the cellular internalization of nanoparticles
10:30–10:45	Alina Chanaewa	Hybrid nanosystems for solar water splitting
10:45–11:15 Coffee Break		
11:15–11:45	Eran Rabani (Invited)	Multielectron Generation in Nanocrystals and Nanorods
11:45–12:00	Karl Wegner	Multiplexed quantum dot-based FRET immunoassays for sensitive cancer diagnostics
12:00–12:15	Christian Klinke	Optoelectronic properties of individual PbS nanosheet
12:15–12:30	Jessica Rodríguez-Fernández	Cation exchange synthesis and optical properties of copper telluride nanocrystals and nano-heterostructures
12:30–12:45	Wiel Evers	Low-dimensional semiconductor superlattices formed by geometric control over nanocrystal attachment
12:45–13:00	Lorenzo Maserati	Strong influence of oxygen adsorption on photoconductivity of CdS nanocrystal films and its application in room- temperature O ₂ sensing
13:00-14:30 Lunch		
N4E-Session		
14:30–15:00	Victor Klimov (invited)	Spectroscopic aspects of quantum dot light emitting diodes
15:00–15:15	Pavlos Lagoudakis	Single exciton lasing from colloidal nanocrystals
15:15–15:30	Yusuf Kelestemur	Type-tunable and low-threshold optical gain from CdSe/CdS core/shell material system
15:30–15:45	Marcus Müller	Fabrication and characterization of stable and processable composites by incorporation of quantum dots into ionic salts
15:45–16:00	Talha Erdem	Macrocrystals of co-immobilized semiconductor nanocrystals and metal nanoparticles
16:00–16:30 Coffee Break		
16:30–17:00	Gerasimos Konstantatos (invited)	Colloidal Quantum Dot Photodetectors
17:00–17:15	Beatriz Hernández Juárez	Interfacing Quantum Dots and Graphitic Surfaces with Chloride Anions as Ligands
17:15–17:30	Stefanie Gabriel	Films of PbS nanowire for thermoelectric application
17:30–17:45	Maria Ibáñez	Nanocrystals hydrohalide surface treatment to control interface properties and tune charge carrier concentration of nanomaterials
17:45–18:00	Susanne Leubner	New insights into the surface chemistry of water-soluble semiconductor nanocrystals
18:00–18:15	Alexey Shavel	The nature of the highly active selenium precursor for the synthesis of the binary, ternary and quaternary semiconductors.
18:15–18:30	Burak Güzeltürk	Excitonics of dense quantum dot nanocomposite
18:30 Dinner		
Thursday, May 22, 2014		

9:00 – 9:45	Christopher Murray (plenary)	TBA
9:45 – 10:00	Benjamin Abécassis	Self-assembly of CdSe nanoplatelets
10:00–10:15	Joanna Kolny-Olesiak	Synthesis and Shape Control of Copper-Indium-Zinc-Sulfide Nanocrystals
10:15–10:30	Marcus Scheele	All-semiconducting Nanoparticle Ligand-Hybrids: New Prospects for Quantum Dot Electronics
10:30–10:45	Moritz Tebbe	Pyramidal Plasmonic Gold Nanoparticle Organizations for Highly Efficient SERS Measurements
10:45–11:15	Coffee Break	
11:15–11:45	Taeghwan Hyeon (invited)	Designed Synthesis of Uniform-sized Nanoparticles for Multifunctional Medical Applications
11:45–12:00	Jörg Polte	Taking a Look into the Black Box - New Perspectives of Nanoparticle Formation
12:00–12:15	Alexander Achtstein	Electroabsorption by 0D, 1D and 2D Nanocrystals: A Study of CdSe Colloidal Quantum Dots, Nanorods and Nanoplatelets
12:15–12:30	Eric Glowacki	Colloidal organic semiconductor nanocrystals created from latent pigments
12:30–12:45	Irina Safenkova	Nanoarray immunochromatography for multiplex detection of viral and bacterial pathogens
12:45-14:30	Lunch	
14:30–15:00	Brian Korgel (invited)	Multiexciton Solar Cells of CuInSe ₂ Nanocrystals
15:00–15:15	Jan Niehaus	Formation of biolabels by continuous flow encapsulation of fluorescent and magnetic nanoparticles
15:15–15:30	Haizheng Zhong	Rational Tuning the Optical Properties of Colloidal - Semiconductor Nanowires
15:30–15:45	Gary Sitbon	Bimodal CuIn(S,Se) ₂ /Zn _{1-x} Mn _x S Quantum Dots for <i>in vivo</i> Near Infrared Fluorescence and Magnetic Resonance Imaging
15:45–16:00	Jannika Lauth	Towards Functional Optoelectronic Nanocrystal Solids - Virtually Bare Surfaces and Significantly Enhanced Electrical Transport in CuIn(Ga)Se ₂
16:00–16:30	Coffee Break	
16:30–18:00	Poster Session B (Posters B1 – B38)	
18:30	Dinner	

Friday, May 23, 2014

9:00 – 9:30	Zeger Hens (invited)	Properties and dynamics of cooling charge carriers in lead sulfide quantum dots
9:30 – 9:45	Victor Puntès	Nanoceria
9:45–10:00	Meng He	Shortcut Synthesis of Inorganic Nanocrystals Using In-situ Formed Alkylamides
10:00–10:15	Roman Krahne	Nanocrystal Film Patterning by Inhibiting Cation Exchange <i>via</i> Electron-Beam or X-ray Lithography
10:15–10:30	Tugce Akdas	Continuous synthesis of CuInS ₂ quantum dots in a microreactor
10:30–10:45	Jacek Stolarczyk	Hydrophilic vs. Hydrophobic: Interface Effect on Photocatalytic Hydrogen Generation on Dye-Sensitized TiO ₂ Nanoparticles
10:45–11:15	Coffee Break	
11:15–11:45	Andreu Cabot (invited)	Colloidal nanocrystals for energy conversion devices: advantages and limitations
11:45–12:00	Maksym Yarema	Generalizable amide-promoted approach for high-quality multicomponent semiconductor nanocrystals
12:00–12:15	Yehonadav Bekenstein	Thermal doping by vacancy formation in copper sulfide nanocrystal arrays
12:15–12:30	Louis Biadala	Spin dynamics of negative trions in ensemble of colloidal CdSe/CdS core/shell nanocrystals
12:30–13:00	Closing	
Optional Excursion or Hiking		