

Challenges in Nanoscience

ISACS21



10-12 November 2016
Beijing, China

Thursday 10 November

08:00	Registration
10:00	Welcome and introductions
	Session 1: Self-assembly Session Chair: Shu-Hong Yu
10:20	Supramolecular free radicals Xi Zhang <i>Tsinghua University, China</i>
11:05	Self-assembled nanocrystal superlattices and their derivatives Angang Dong <i>Fudan University, China</i>
11:25	Nanoparticle interactions Nicholas Kotov <i>University of Michigan, USA</i>
11:45	Using crystallisation driven assembly for the preparation of 2D materials Rachel O'Reilly <i>University of Warwick, UK</i>
12:30	Lunch
	Session 1 continued: Self-assembly Session Chair: Nicholas Kotov
13:45	Dynamic self-assembly of gold nanoparticles for switchable plasmons Tao Ding <i>University of Cambridge, UK</i>
14:05	From CO₂ capture to tuneable optics and surfactant self-assembly: teaching anilines new tricks Charl Faul <i>University of Bristol, UK</i>
14:25	Beyond the Synthesis of Metal Nanostructures Yadong Yin <i>University of California, Riverside, USA</i>
15:10	Flash Poster Session (by invitation only)
15:40	Coffee Break and Poster Session
	Session 2: Synthetic methodology Session Chair: Raffaella Buonsanti
16:10	Rational design of organic nanostructure arrays for molecular nano-devices Wei Chen <i>National University of Singapore, Singapore</i>
16:30	Recent progress in 2D materials: ferroelectricity and ferromagnetism Zheng Liu <i>Nanyang Technological University, Singapore</i>

16:50	Crystal phase-controlled synthesis of novel noble metal nanomaterials Hua Zhang <i>Nanyang Technological University, Singapore</i>
17:35	Dinner

Friday 11 November

	Session 2 continued: Synthetic methodology Session Chair: Xun Wang
09:00	Colloidal chemistry to advance energy conversion studies Raffaella Buonsanti <i>École Polytechnique Fédérale de Lausanne, Switzerland</i>
09:45	Multiplexed polymer pen lithography for biomedical applications Michael Hirtz <i>Karlsruhe Institute of Technology, Germany</i>
10:05	Synthesis of novel diagnostic silicon nanoparticles for targeted delivery of thiourea to EGFR-expressing cancer cells Yimin Chao <i>University of East Anglia, UK</i>
10:25	Coffee Break
	Session 3: Energy Session Chair: Yu Huang
11:05	Metal-Organic-Framework-derived functional materials for electrochemical energy storage and conversion Xiong Wen (David) Lou <i>Nanyang Technological University, Singapore</i>
11:50	Nanogenerators for self-powered flexible electronics and piezotronics for active human-machine interfacing Zhong Lin Wang <i>Georgia Institute of Technology, USA</i>
12:35	Lunch
	Session 3 continued: Energy Session Chair: Rachel O'Reilly
13:50	Strategies to construct low-cost high-performance inverted perovskite solar cells Zuqiang Bian <i>Peking University, China</i>
14:10	Metal nitride nanomaterials for high-rate supercapacitors and electrocatalysts Hong Jin Fan <i>Nanyang Technological University, Singapore</i>
14:30	Design of flexible on-chip microsupercapacitors for sensing applications Guozhen Shen <i>Institute of Semiconductors, Chinese Academy of Sciences, China</i>
14:50	Coffee Break and Poster Session

	Session 4: Nano-biology/medicine Session Chair: Yadong Yin
16:20	Compact, polyvalent mannose-quantum dots as sensitive, ratiometric FRET probes for multivalent protein-ligand interactions Yuan Guo <i>University of Leeds, UK</i>
16:40	Ag₂S quantum dot: a new near-infrared-ii fluorescence nanoprobe for <i>in vivo</i> bioimaging Qiangbin Wang <i>Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences, China</i>
17:00	Sequential bottom-up assembly of synthetic cells Joachim Spatz <i>Max Planck Institute for Intelligent Systems, Germany</i>
17:45	Close of sessions
	Conference banquet

Saturday 12 November

	Session 4 continued: Nano-biology/medicine Session Chair: Hua Zhang
09:00	Smart interfacial materials from super-wettability to binary cooperative complementary systems Lei Jiang <i>Technical Institute of Physical and Chemistry, CAS, China</i>
09:45	Self-assembled lipid lyotropic liquid crystalline nanoparticles as potential nanomedicines Jiali (Maggie) Zhai <i>RMIT University, Australia</i>
10:05	Super-Resolution Fluorescent Imaging for Organic Nanostructures Ming-Qiang Zhu <i>Huazhong University of Science & Technology, China</i>
10:25	Coffee Break
	Session 5: Catalysis Session Chair: Jianfang Wang
11:05	Exploring energy, environmental, and biological challenges with mesoporous nanoparticle technology Brian Trewyn <i>Colorado School of Mines, USA</i>
11:50	Carbon dots promise catalytic application Zhenhui Kang <i>Soochow University, China</i>
12:10	Lunch
	Session 5 continued: Catalysis Session Chair: Brian Trewyn
13:15	Well-dispersed ZIF-derived Co,N-co-doped carbon nanoframe: highly efficient oxygen reduction reaction electrocatalyst Tierui Zhang <i>Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China</i>

13:35	Plasmonic enhancement of chemical reactions Jianfang Wang <i>The Chinese University of Hong Kong, Hong Kong</i>
14:20	Close of meeting