

**CHALLENGES IN ORGANIC MATERIALS AND SUPRAMOLECULAR CHEMISTRY – ISACS6
PEKING UNIVERSITY, BEIJING, CHINA
PROGRAMME**

Lectures will be held in Sunny Hall, posters will be situated in Press Hall

Friday 2 September 2011

19:00	WELCOME RECEPTION Kindly sponsored by the Beijing National Laboratory for Molecular Sciences.
20:00	CLOSE

Saturday 3 September 2011

Bioinspired Nanoscience and Nanotechnology <i>Session Chair: Dave Leigh, University of Edinburgh, UK</i>	
08:45	Opening Comments Dave Leigh, <i>University of Edinburgh, UK</i>
09:00 PLEN1	Plenary: Self-Assembly of Supramolecular Materials for Energy and Medicine Samuel Stupp, <i>Northwestern University, USA</i>
09.40 O1	DNA as a Supramolecular Scaffold for Assemblies of Chromophores Eugen Stulz, <i>University of Southampton, UK</i>
10.00 PLEN2	Plenary: Smart Supramolecular Systems from Aqueous Assembly of Aromatic Rods Myongsoo Lee, <i>Seoul National University, Korea</i>
10.40	COFFEE
Bioinspired Nanoscience and Nanotechnology <i>Session Chair: Phil Gale, University of Southampton, UK</i>	
11.10 PLEN3	Plenary: Molecular Behavior in Small Spaces Julius Rebek, <i>The Skaggs Institute for Chemical Biology and The Scripps Research Institute, USA</i>
11.50 O2	Assembly of Coordination Container Molecules Cheng-Yong Su, <i>Sun Yat-Sen University, China</i>
12.10 PLEN4	Plenary: Making the Tiniest Machines David Leigh, <i>University of Edinburgh, UK</i>
12.50	LUNCH, SHAOYUAN BUILDING 2 RESTAURANT
Bioinspired Nanoscience and Nanotechnology <i>Session Chair: Eugen Stulz, University of Southampton, UK</i>	
14.20 PLEN5	Plenary: Supramolecular DNA Assembly: Towards Biological and Materials Applications Hanadi Sleiman, <i>McGill University, Canada</i>
15.00 O3	Biochemically Programming Nanomaterials in the Development of Novel, Morphology Switchable Imaging Probes Nathan Gianneschi, <i>University of California, San Diego, USA</i>
15.20 PLEN6	Plenary: Using Synthetically Modified Proteins to Make New Materials Matthew Francis, <i>University of California, Berkeley, USA</i>
16.00	COFFEE

Bioinspired Nanoscience and Nanotechnology Session Chair: <i>Xi Zhang</i>	
16.30 PLEN7	Plenary: Tailoring Functional Soft Materials through Advanced Molecular Design Takuzo Aida, <i>University of Tokyo, Japan</i>
17.10 O4	White-Light Emitting Individual NanoFibers and Highly Polarized Blue-Emissive Crystals based on Anthracenes and Tetracenes Andre Del Guerzo, <i>Université Bordeaux 1, France</i>
17.30	POSTER SESSION
19.00	CLOSE

Sunday 4 September 2011

Functional Nanomaterials and Nanosystems Session Chair: <i>Colin Nuckolls, Columbia University, USA</i>	
09.00 PLEN8	Plenary: The non-covalent synthesis of functional supramolecular systems Bert Meijer, <i>Eindhoven University of Technology, The Netherlands</i>
09.40 O5	Cucurbiturils at the Interface between Supramolecular Chemistry and Materials Science Oren Schermann, <i>University of Cambridge, UK</i>
10.00 PLEN9	Plenary: Aggregation-Induced Emission: Fundamentals and Applications Benzhong Tang, <i>The Hong Kong University of Science & Technology, Hong Kong</i>
10.40	COFFEE
Functional Nanomaterials and Nanosystems Session Chair: <i>Oren Schermann, University of Cambridge, UK</i>	
11.10 PLEN10	Plenary: Supramolecular Chemistry of Porphyrin-Based Molecular Wires Harry Anderson, <i>Oxford University, UK</i>
11.50 O6	Switching Liquid-Crystals using Hydrazone-based Rotary Switches Ivan Aprahamian, <i>Dartmouth College, USA</i>
12.10 PLEN11	Plenary: High Performance Organic Semiconductors, Micro- and Nano-meter Sized Crystals and Devices Wenping Hu, <i>Chinese Academy of Sciences, Beijing, China</i>
12.50	LUNCH, SHAOYUAN BUILDING 2 RESTAURANT
Functional Nanomaterials and Nanosystems Session Chair: <i>Alan Rowan, Radboud University Nijmegen, The Netherlands</i>	
14.20 PLEN12	Plenary: Superamphiphiles for Controlled Self-assembly Xi Zhang, <i>Tsinghua University, China</i>
15.00 O7	Threaded Structures Based on Crown Ether Derivatives Feihe Huang, <i>Zhejiang University, China</i>
15.20 PLEN13	Plenary: Supramolecular Architectures for Artificial Photosynthesis Stefan Matile, <i>University of Geneva, Switzerland</i>
16.00	COFFEE

Functional Nanomaterials and Nanosystems Session Chair: Nathan Gianneschi	
16.30 PLEN14	Plenary: New Anion Receptors and Transporters Phil Gale, <i>University of Southampton, UK</i>
17.10 O8	2011 ChemComm Emerging Investigator Lecture: Metal-Organic Calixarene Assemblies Scott Dalgarno, <i>Heriot-Watt University, UK</i>
17.30	POSTER SESSION
19.00	CLOSE

Monday 5 September 2011

Molecular Materials Session Chair: Jan Van Hest	
09.00 PLEN15	Plenary: From Molecule to Biomedical Application 'Polyisocyanopeptide Nanoworms' Alan Rowan, <i>Radboud University Nijmegen, The Netherlands</i>
09.40 O9	Functionalized Triindoles: Tuning the Self-assembly and Electronic and Properties Berta Gómez-Lor, <i>Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain</i>
10.00 PLEN16	Plenary: Main-Chain Hyperbranched Polyrotaxanes: Synthesis, Photophysical Properties, and Energy Funnel Jian Pei, <i>Peking University, China</i>
10.40	COFFEE
Molecular Materials Session Chair: Wenping Hu	
11.10 PLEN17	Plenary: From Molecules to Materials Colin Nuckolls, <i>Columbia University, USA</i>
11.50 O10	Chiral Inducing, Memory and Amplification in Supramolecular Aggregates Yun-Bao Jiang, <i>Xiamen University, China</i>
12.10	CLOSING REMARKS Colin Nuckolls, <i>Columbia University, USA</i>
12.15	CLOSE

SPONSORS

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BIOGRAPHICAL NOTES OF PLENARY SPEAKERS

Takazo Aida

University of Tokyo, Japan

Dr. Aida started his academic carrier in the University of Tokyo in 1984 and was promoted to full professor in 1996. His research interests include all aspects of supramolecular chemistry and materials science. He has received many awards such as ACS and CSJ Awards in 2009, Medal with Purple Ribbon in 2010, Humboldt Research Award and Fujihara Award in 2011.



Harry Anderson

University of Oxford, UK

Harry L. Anderson studied for his PhD with Professor J. K. M. Sanders (Cambridge) and did postdoctoral work with Professor F. Diederich (ETH Zurich). He has led a research group in Oxford since 1995. His research reflects a fascination with the interplay between electronic delocalization, supramolecular architecture and function.



Matthew Francis

University of California, Berkeley, USA

Adam Matzger received his BA from Oberlin College. His PhD was completed at the University of California at Berkeley in the group of K Peter C Vollhardt, where he conducted theoretical and experimental investigations of dehydrobenzoannulenes and phenylenes. He went on to postdoctoral work jointly with Nathan S Lewis and Robert H Grubbs at the California Institute of Technology investigating a novel class of chemical sensors. In 2000, he joined the faculty at the University of Michigan at Ann Arbor, where he is now Professor of Chemistry and of Macromolecular Science and Engineering. His current research interests focus on organic materials in the solid state ranging from crystalline polymorphs to porous materials.



Philip Gale

University of Southampton, UK

Phil Gale is Professor of Supramolecular Chemistry and Head of the School of Chemistry at the University of Southampton. His research interests focus on the supramolecular chemistry of anionic species and in particular the selective recognition, sensing and lipid bilayer transport of anions. He is the author or co-author of over 170 publications (h-index 50) and has won a number of research prizes including a Society/Journal of Porphyrins and Phthalocyanines Young Investigator Award (2004), the Bob Hay Lectureship (RSC UK Macrocycles and Supramolecular Chemistry Group - 2004), a 2005 Corday-Morgan medal and prize from the Royal Society of Chemistry and a 2010 JSPS Invitation Fellowship.



Wenping Hu

Chinese Academy of Sciences, China

Wenping Hu obtained his Ph.D degree in Institute of Chemistry (1999), Chinese Academy of Sciences (CAS). As a research fellow of Japan Society for the Promotion of Sciences and Alexander von Humboldt Foundation he worked in Osaka Univ. and Stuttgart Univ. for 4 years. After that as a research associate he worked in Nippon Telephone and Telegraph (NTT, Japan). Then, as a permanent staff member he joined in Institute of Chemistry, CAS. Now, he is a Professor of Institute of Chemistry (CAS), and is focusing on Molecular Electronics and has 180 refereed publications with citation >2,200 times.



Myongsoo Lee

Seoul National University, Korea

Myongsoo Lee received his Ph.D. degree in Macromolecular Science from Case Western Reserve University in 1993. After short postdoctoral appointments at University of Illinois at Urbana-Champaign, he joined the Faculty of Chemistry at Yonsei University (1994) and then moved to Seoul National University in 2009, where he is presently Fellow Professor of Chemistry. He currently serves as Editorial Board Member for Chemistry an Asian Journal and J. Polym. Sci: Polym. Chem. His main research interests include self-assembling molecules, controlled supramolecular structures and peptide assembly.



David Leigh

University of Edinburgh, UK

David Leigh obtained his PhD in supramolecular organic chemistry from the University of Sheffield in 1987. After postdoctoral research at the National Research Council of Canada in Ottawa, David returned to the UK as a Lecturer at the University of Manchester Institute of Science and Technology in 1989. In 1998 he moved to the University of Warwick as Professor of Synthetic Chemistry and in 2001 he moved again to take up the Forbes Chair of Organic Chemistry at the University of Edinburgh. Leigh's research interests include the development of new strategies for interlocked molecule synthesis and the design and construction of artificial molecular motors and machines. He has won a number of major international awards including the 2007 Izatt-Christensen Award for Macrocyclic Chemistry, 2007 Descartes Prize and the 2007 Feynman Prize for Nanotechnology. He was elected to the Fellowship of the Royal Society, the UK's National Academy of Sciences, in 2009. David is the Associate Editor of Chemical Science responsible for Supramolecular Chemistry.

**Stefan Matile**

University of Geneva, Switzerland

Stefan Matile received this PhD (1994) from the University of Zurich. After a postdoc at Columbia University, New York (1994-1996), he joined Georgetown University, Washington DC, as an Assistant Professor. In 1999, he moved to the University of Geneva, where he is currently Full Professor in the Department of Organic Chemistry and the National Centre of Competence in Research (NCCR) in Chemical Biology. He is an ERC Advanced Investigator.

**E.W. (Bert) Meijer**

Eindhoven University of Technology, The Netherlands

Bert Meijer is Distinguished University Professor in the Molecular Sciences and Professor of Organic Chemistry at the Eindhoven University of Technology. His main research interests are the design, synthesis, characterization, and possible applications of supramolecular architectures, with special emphasis on chirality, dendrimers, π -conjugated oligomers and polymers, hydrogen bonding architectures, and their use in functional materials and biomedical applications. He published ~500 scientific papers and ~25 patents. From the research activities in his group, two companies are started: SyMO-Chem, a professional research contract company, and SupraPolix, focusing on supramolecular polymers. Since 2006, he is chairman of the External Scientific Board of Royal DSM. Bert Meijer is member of many editorial advisory boards, including Bulletin of the Chemical Society of Japan, Chemical Communications, Angewandte Chemie and Journal of the American Chemical Society. Since 2005 he is Editor of Journal of Polymer Science Part A: Polymer Chemistry. Bert Meijer received numerous awards, including the 1999 Silver Medal of the Macro UK group, the Spinoza award in 2001, the ACS award for Polymer Chemistry in 2006, the AkzoNobel Science Award 2010 and he is member of the Royal Netherlands Academy of Science.

**Colin Nuckolls**

Columbia University, USA

Colin Nuckolls received his B.S. in 1993 from UT Austin and his Ph. D. in 1998 from Columbia University. He was an NIH post-doctoral fellow at the Scripps Research Institute in La Jolla, California until he joined the Faculty at Columbia University as an Assistant Professor of Chemistry in 2000. In 2006, Nuckolls was promoted to the rank of Professor, and in July 2008 he assumed the Chairmanship of Columbia's Department of Chemistry. His research focuses on integrating reaction chemistry into electrical devices. He is a founding member of the Columbia University Nanoscience Center. Amongst other awards, he is a recipient of a Sloan Research Fellowship, a Beckman Young Investigator Award, a 2008 ACS Arthur C. Cope Scholar Award, and the 2009 ACS Baekeland Award.

**Jian Pei**

Peking University, China

Professor Jian Pei joined in Peking University as an undergraduate student in 1985. He obtained his Ph. D. degree in Peking University in 1995, and then he moved to National University of Singapore as a postdoctor fellow. In 1998, he joined the group of Professor A. J. Heeger to study organic semiconducting materials for OLEDs, OFETs, and photovoltaics. From 2001, he has stayed in Peking University till now.



Julius Rebek, Jr.
Scripps, USA

Julius Rebek, Jr. is the Director of The Skaggs Institute for Chemical Biology at The Scripps Research Institute. He was born in Hungary and educated at the University of Kansas and the Massachusetts Institute of Technology. He held professorships at UCLA, the University of Pittsburgh and MIT before moving to La Jolla in 1996. His research interests include synthetic, self-replicating molecules, self-assembling systems, recognition phenomena and molecular behavior in small spaces.



Alan Rowan

Radboud University, The Netherlands

Alan E. Rowan was made Professor and Head of Molecular Materials department of the IMM at the Radboud University Nijmegen (NL) in 2006. His research interests include the relationship between architecture and properties of catalytic and electronic systems.



Hanadi Sleiman

McGill University, Canada

Hanadi Sleiman received her PhD from Stanford University under the guidance of Prof. L. McElwee-White. Following a CNRS postdoctoral stay in supramolecular chemistry with Prof. Jean-Marie Lehn at the Université Louis Pasteur in France, she joined the faculty of McGill University in 1999, where she is currently professor of chemistry and Dawson Scholar (McGill's Canada Research Chair). Sleiman was named Cottrell Scholar of the Research Corporation in 2002. She received the Principal's Prize (2002) and the Leo Yaffe Award (2004) for excellence in teaching, was named William Dawson Scholar in 2004, received the NSERC Discovery Accelerator Award in 2008, and the 2009 Strem Award of the Canadian Society for Chemistry.



Samuel Stupp

Northwestern University, USA

Professor Samuel Stupp has been a Board of Trustees Professor of Materials Science, Chemistry, and Medicine member at Northwestern University since 1999. He is also the Director of Northwestern's Institute for BioNanotechnology in Medicine. Professor Stupp is a member of the American Academy of Arts and Sciences, and fellow of the American Physical Society and the Materials Research Society.



Ben Zhong Tang

The Hong Kong University of Science & Technology, Hong Kong

Ben Zhong Tang received his Ph.D. degree from Kyoto University and is now Chair Professor of Chemistry at The Hong Kong University of Science & Technology. He is serving as Science News Contributor to Noteworthy Chemistry (ACS), Editor-in-Chief of Polymer Chemistry Series (RSC), and Editor of Polymer Bulletin (Springer).



Xi Zhang

Tsinghua University, China

Dr. Xi Zhang is a full professor of the Department of Chemistry, Tsinghua University, Beijing, China. He is senior editor of Langmuir and has served as Editorial Board Members of several journals, including Chemical Communications and Polymer Chemistry. In 2007, he was selected as a member of Chinese Academy of Sciences. Since 2010, he is vice president of Chinese Chemical Society. His research interests are focused on supramolecular assembly and polymer thin films.



CHALLENGES IN ORGANIC MATERIALS AND SUPRAMOLECULAR CHEMISTRY – ISACS6 POSTERS

There will be two poster sessions:

Saturday 3 September, 17:30-19:00

Sunday 4 September, 17:30-19:00

P01 Steric π -stacks as supramolecular semiconductors for organic electronics

Ling-Hai XIE¹, Wei Huang¹, ¹*Institute of Advanced Materials (IAM), Nanjing University of Posts and Telecommunications, Nanjing, China*

P02 Gas Phase conformational studies on some pyrazolo[3,4-d]pyrimidines

Umesh Yadava¹, Mihir Roychoudhury¹, Maheshwer Singh¹, ¹*DDU Gorakhpur University, Gorakhpur, U.P., India*

P03 Photophysical Properties of Hydrophilic / Lipophilic porphyrins Coordinated with Ru-phenanthroline and Their Interactions with DNA

Xiao Lin¹, Kai Wang¹, Xiulan Zhang¹, Yanli Ge¹, Xiulian Ju¹, ¹*Key Laboratory for Green Chemical Process of Ministry of Education, Wuhan Institute of Technology, Wuhan, Hubei, China*

P04 Electrospun fibers and their applications

Chaobo Huang¹, Stefaan J. Soenen¹, Joanna Rejman¹, Bart Lucas¹, Kevin Braeckmans¹, Jo Demeester¹, Stefaan C De Smedt¹, ¹*Department of Pharmaceutics, Ghent University, Gent, Belgium*

P05 Molecular and supramolecular engineering for second and third order NLO

Huriye Akdas-Kilig¹, Paul Savel¹, Hubert Le Bozec¹, Jean-Luc Fillaut¹, ¹*University of Rennes 1, Rennes, France*

P06 Self-Assembly and Biomedical Applications of Alkyl chain grafted Poly(L-lysine)

Jeng-Shiung Jan¹, Yun-Chiao Huang¹, Marannu Arham¹, ¹*National Cheng Kung University, Tainan, Taiwan*

P07 Anion-linked cucurbit[n]uril frameworks

Li Liu¹, ¹*Dalian Institute of Chemical Physics, CAS, Dalian, China*

P08 Constructing Novel Organic Functional Materials with Cycloheptatriene Rings

Qian Miao¹, Jiye Luo¹, Hai Xia¹, Danqing Liu¹, ¹*Department of Chemistry, Chinese University of Hong Kong, Hong Kong, China*

P09 New Derivatives of 1,5,9-Triazacoronenes: Synthesis, Structure, and Physicochemical Properties

Ming Li¹, Peng Zhang¹, Yajun Han¹, Jian Chang¹, Xianying Shi¹, Junfa Wei¹, Wenliang Wang¹, Yan Ma¹, ¹*School of Chemistry and Materials Science, Shaanxi Normal University, Xi'an, China*

P10 A Single-molecule Potentiometer: Oligoynes Molecular Wires and Their Derivatives

Jeffrey Meisner¹, Masha Kamenetska¹, Markrete Krikorian¹, Latha Venkataraman¹, Michael Steigerwald¹, Colin Nuckolls¹, ¹*Columbia University, New York, NY, USA*

P11 Synthetic strategies towards carbazole based macrocycles

Thomas Eaton¹, ¹*Universität Basel, Basel, Switzerland*

P12 Synthesis and characterization of hydrogel coated bimetallic nanoparticles using surfactant-free emulsion polymerization (Ag@Au)@P(NIPAm-ko-AAc)

Ali Osman Solak^{1,2}, Remziye Güzel³, Haslet Eksi¹, Zeynep Gulsah Durgun Pinarcioglu¹, Zafer Ustundag⁴, ¹*Ankara University, Ankara, Turkey*, ²*Kyrgyz-Turk Manas University, Bishkek, Kyrgyzstan*, ³*Dicle University, Diyarbakir, Turkey*, ⁴*Dumlupinar University, Kutahya, Turkey*