

## Sunday, January 13<sup>th</sup> (Afternoon)

Location: Outside Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Early Registration</b>			
4:00 - 6:00 pm	<b>Register and Collect Conference Documents</b>		

## Monday, January 14<sup>th</sup> (Morning)

Location: Outside Room 204 (Amphitheatre) & Tejas Dining Room

Time	Title	Speaker	Affiliation
<b>Registration</b>			
7:00 - 8:00 am	<b>Register and Collect Conference Documents</b>		
7:00 - 8:00 am	<b>Breakfast (Tejas Dining Room)</b>		

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Opening Ceremony</b>			
8:00 - 8:15 am	ISHA 2013 Introduction and Welcome Remarks	Brian Korgel / K. Byrappa	University of Texas at Austin / Mysore University
8:15 - 9:00 am	<b>Plenary:</b> Multi-energy Solvothermal Processing: Retrospect and Prospect	Sridhar Komarneni	Penn State University
9:00 - 9:30 am	<b>Break</b>		

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 1 – Materials: Lithium Ion Battery Synthesis</b> (Chair: Justin Holmes, University College Cork)			
9:30 - 10:00 am	<b>1-1:</b> Microwave-assisted Solvothermal Synthesis of Nanostructured Materials for Lithium-ion Batteries	Arumugam Manthiram	University of Texas at Austin
10:00 - 10:30 am	<b>1-2:</b> Architectural Control of Nanostructured TiO <sub>2</sub> (B) and Morphological Dependent Lithiation Behavior	Keith Stevenson	University of Texas at Austin
10:30 - 11:00 am	<b>1-3:</b> Supercritical solvothermal synthesis of oxide nanostructures in water/alcohol mixtures	Cyril Aymonier	University of Bordeaux
11:00 - 11:15 am	<b>1-4:</b> Solution-Grown Si and Ge Nanowires as High Capacity Anodes for Lithium-Ion Batteries	Timothy Bogart	University of Texas at Austin

11:15 - 11:30 am	<b>1-5:</b> Direct growth of silicon and germanium nanowires on metal foils: opportunities and challenges for high-throughput processing	Benjamin Richards	Cornell University
11:30 – noon	<b>1-6:</b> Tailor-Made Ceramic Nanocrystals by Organic-Ligand-Assisted Hydrothermal Synthesis	Satoshi Ohara	Osaka University

Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 2 – Materials: Nanomaterials</b> (Chair: Jim Watkins, University of Massachusetts)			
9:30 - 10:00 am	<b>2-1:</b> Fabrication and Application of Inorganic Nanoparticle Superstructures	Zhiyong Tang	National Center for Nanoscience and Technology
10:00 - 10:30 am	<b>2-2:</b> Solvothermal Synthesis of Monodisperse Nanocrystals and their Surface	Xun Wang	Tsinghua University
10:30 - 11:00 am	<b>2-3:</b> Hydrothermal Formation and Application of advanced Ca/Mg-bearing Whiskers	Lan Xiang	Tsinghua University
11:00 - 11:30 am	<b>2-4:</b> Feature and Future of Hydrothermal-Electrochemical Processing for Inorganic Materials	Masahiro Yoshimura	National Cheng Kung University
11:30 - noon	<b>2-5:</b> Multiplex Templating Hydrothermal Synthesis of Functional Nanowires, Macroscopic Assemblies and Their Applications	Shu-Hong Yu	Hefei National Laboratory

Location: Room 102

Time	Title	Speaker	Affiliation
<b>Session 3 – Sustainability</b> (Chair: Richard Riman, Rutgers University)			
9:30 - 10:00 am	<b>3-1:</b> Hydrothermal Conversion of Algal Biomass to Fuels and Chemicals	Phillip Savage	University of Michigan
10:00 - 10:30 am	<b>3-2:</b> Supercritical Water Oxidation: The Next Generation of Processes for Hazardous Waste Treatment	Bushra Al-Duri	University of Birmingham
10:30 - 10:45 am	<b>3-3:</b> Sub-critical Water Technology as a Green and Sustainable Tool for Oil Extraction	Wael Abdelmoez	Minia University
10:45 - 11:15 am	<b>3-4:</b> Carbon Dioxide Capture in Metal-Organic Frameworks	Jeffrey Long	University of California, Berkeley
11:15 - 11:30 am	<b>3-5:</b> Greener Synthesis of Metal Organic Frameworks in High Temperature Water	Peter Bayliss	University of Nottingham
11:30 - noon	<b>3-6:</b> Microporous Metal Organic Frameworks: Solvothermal-Hydrothermal Synthesis, Structure-Pore Functionalization, and Potential Applications	Jing Li	Rutgers University

Location: Tejas Dining Room

Time	Title
Noon - 1:30 pm	Lunch

## Monday, January 14<sup>th</sup> (Afternoon)

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 4 – Materials: Catalysis and Nanomaterials</b> (Chair: Tadafumi Adschiri, Tohoku University)			
1:30 - 2:00 pm	<b>4-1:</b> New Oxide Materials for Catalysis from Hydrothermal Chemistry	Richard Walton	University of Warwick
2:00 - 2:30 pm	<b>4-2:</b> Hydrothermal-galvanic couple synthesis of perovskite oxide thin films	Fu-Hsing Lu	National Chung-Hsing University
2:30 - 3:00 pm	<b>4-3:</b> Shape-selective Growth of Noble Metal Nanocrystals	Xianmao Lu	National University of Singapore
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>4-4:</b> Synthesis and Applications of Nanoparticles	Richard Tilley	Victoria University of Wellington
4:00 - 4:30 pm	<b>4-5:</b> Generalized Syntheses of Nanocrystal–Graphene Hybrids in Hot Solvents	Hsing-Yu Tuan	National Tsing Hua University
4:30 - 5:00 pm	<b>4-6:</b> Nanoparticle Assembly Using Polymer Templates and Printing Technologies for Hybrid Materials and Devices	Jim Watkins	University of Massachusetts

Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 5 – X-Rays, Microreactors and In situ studies</b> (Chair: Edward Lester, University of Nottingham)			
1:30 - 2:00 pm	<b>5-1:</b> Hydrothermal synthesis of VO <sub>2</sub> nanocrystals and applications	Yanfeng Gao	SIC
2:00 - 2:30 pm	<b>5-2:</b> Neutron Radiography on Mixing Behavior of Supercritical Water and Room-Temperature Water in Tubular Flow Reactor for Hydrothermal Synthesis	Seiichi Takami	Tohoku University
2:30 - 3:00 pm	<b>5-3:</b> Hydrothermal Media on Chip: Supercritical Microreactors for Studying Water / CO <sub>2</sub> Systems	Samuel Marre	University of Bordeaux
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>5-4:</b> Design Methodology of Microreactor and its Application for Supercritical Nanoparticle Synthesis	Nobuaki Aoki	Tohoku University
4:00 - 4:30 pm	<b>5-5:</b> The In Situ Supercritical Suite at Pacific Northwest National Laboratory	Todd Schaefer	Pacific Northwest National Laboratory
4:30 - 4:45 pm	<b>5-6:</b> Watching chemistry happen: In situ studies of nanoparticle formation and growth in sub- and supercritical fluids	Kirsten M. Ø. Jensen	Aarhus University
4:45 - 5:00 pm	<b>5-7:</b> Liquid Crystals of Zirconium Phosphate disks with Various Aspect Ratios Controlled through Hydrothermal Method	Min Shuai	Texas A&M University

Location: Room 102

Time	Title	Speaker	Affiliation
<b>Session 6 – Materials</b> (Chair: Byron Byrappa, University of Mysore)			
1:30 - 1:45 pm	<b>6-1:</b> Low temperature sol gel processing of pure and Al doped ZnO films	Sampyady Dharmaprakash	Mangalore University
1:45 - 2:00 pm	<b>6-2:</b> Preparation of transparent zeolite film on glass substrate without using structure directing agents	Takamasa Onoki	Osaka University
2:00 - 2:30 pm	<b>6-3:</b> Hydrothermal Synthesis of New Functional Polar Inorganic Materials	P. Shiv Halasyamani	University of Houston
2:30 - 2:45 pm	<b>6-4:</b> Direct Synthesis of Oxides from Solvothermal Oxidation of Metallic Gallium	Helen Playford	University of Warwick
2:45 - 3:00 pm	<b>6-5:</b> Characterisation of Doped Perovskites Prepared by Hydrothermal Synthesis	Hilni Harunsani	University of Warwick
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 3:45 pm	<b>6-6:</b> New Metastable Ternary Metal Ruthenium Oxides from Low Temperature Hydrothermal Synthesis	Craig Hiley	University of Warwick
3:45 - 4:00 pm	<b>6-7:</b> Synthesis of Nanocomposites of ZnO/ZrO <sub>2</sub> , Ag-RuO <sub>2</sub> and Ru-ZnS by Electrochemical method in aqueous medium for photocatalytic degradation kinetics reaction for dyes and for antibacterial study	Sannaiah Ananda	University Of Mysore
4:00 - 4:15 pm	<b>6-8:</b> A strategy for Design of Concave Pt-Ni Alloy with Controllable Chemical Etching	Yuen Wu	Jilin University
4:15 - 4:30 pm	<b>6-9:</b> Synthesis of a Novel Implant for Bone Grafting Using Sub-critical Water Technology	Hiroyuki Yoshida	Osaka University
4:30 - 4:45 pm	<b>6-10:</b> The use of continuous hydrothermal synthesis in the formulation and functionalization of flame retardant polymers	Sherif Elbasuney	University of Nottingham
4:45 - 5:00 pm	<b>6-11:</b> Bifunctional, Non-precious Metal Perovskite Electrocatalysts with High Mass Activities for Water Oxidation and Oxygen Reduction	William Hardin	University of Texas at Austin

## Monday, January 14<sup>th</sup> (Evening)

Location: Interior Courtyard

Time	Title
5:30 - 7:30 pm	<b>Reception:</b> Poster Session & ISHA Graduate Student Poster Competition (Detailed Listing of Participants at End of Program Schedule)

## Tuesday, January 15<sup>th</sup> (Morning)

Location: Tejas Dining Room

Time	Title
7:00 - 8:00 am	<b>Breakfast</b>

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Morning Ceremony</b>			
8:00 - 8:45 am	<b>Roy-Somiya Award:</b> "From Lab to Factory Floor"	Edward Lester	University of Nottingham
8:45- 9:00 am	<b>Break</b>		

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 7 – Materials: Nanowires</b> (Chair: Richard Tilley, Victoria University of Wellington)			
9:00 - 9:30 am	<b>7-1:</b> Metal-Assisted Silicon and Germanium Nanowire Growth: Novel Methods for High-Throughput Production	Tobias Hanrath	Cornell University
9:30 - 10:00 am	<b>7-2:</b> Tailoring the Growth and Morphology of Germanium Nanowires in Supercritical fluids	Justin Holmes	University College Cork
10:00 - 10:30 am	<b>7-3:</b> Colloidal Synthesis of Silicon Nanowires and Nanorods	Andrew Heitsch	Dow Chemical
10:30 - 11:00 am	<b>Break</b>		
11:00 - 11:15 am	<b>7-4:</b> Monophenyl Silane Catalyzed Growth of Germanium Nanowires with Gold and Nickel Seeds	Xiaotang Lu	University of Texas at Austin
11:15 - 11:30 am	<b>7-5:</b> Self-Seeded Growth of Germanium Nanowires in Supercritical Fluids	Olan Lotty	University College Cork
11:30 - 11:45 am	<b>7-6:</b> The structure and properties of W <sub>18</sub> O <sub>49</sub> ultrathin nanowire bundles	Guangsheng Pang	Jilin University
11:45 – noon	<b>7-7:</b> Visible Light Driven Photoelectrochemical Water Oxidation on Nitrogen-Modified TiO <sub>2</sub> Nanowires	Son Hoang	University of Texas at Austin

Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 8 – Materials: Crystallization/Processing</b> (Chair: Dan Wang, Institute of Process Engineering)			
9:00 - 9:30 am	<b>8-1:</b> High Quality, Low Cost Ammonothermal Bulk GaN Substrates	Dirk Ehrentraut	Soraa, Inc.
9:30 - 10:00 am	<b>8-2:</b> Densification Behavior and Interfaces of Tantalum Carbide Nanopowders Prepared by a Solvothermal Process and Consolidated by Spark Plasma Sintering	Olivia Graeve	University of California, San Diego
10:00 - 10:30 am	<b>8-3:</b> Ultrasonic-assisted hydrothermal method for the piezoelectric materials	Takeshi Morita	University of Tokyo
10:30 - 11:00 am	<b>8-4:</b> Hydrothermal growth of perovskites: a strategy for processing advanced ferroic structures	Paula Vilarinho	University of Aveiro
11:00 - 11:30 am	<b>8-5:</b> Hydrothermal Growth of Calcite Crystals by Slow Cooling Method	Kazumichi Yanagisawa	Kochi University
11:30 – noon	<b>8-6:</b> Hydrothermal Production and Surface Characterization of Novel Alpha Alumina – based Nanomaterials	Wojciech Suchanek	Sawyer Technical Materials, LLC

Location: Tejas Dining Room

Time	Title
noon - 1:30 pm	Lunch

## Tuesday, January 15<sup>th</sup> (Afternoon)

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 9 – Materials: Particle production/Continuous reactors</b> (Chair: Richard Walton, University of Warwick)			
1:30 - 2:00 pm	<b>9-1:</b> Supercritical Hydrothermal Synthesis of Organic Modified Nanoparticles for the Fabrication of Hybrid Polymers	Tadafumi Adschiri	Tohoku University
2:00 - 2:30 pm	<b>9-2:</b> Hydrothermal Synthesis of Layered $\alpha$ -Zirconium Phosphate Disks: Control of Aspect Ratio and Polydispersity for Nano-architecture	Zhengdong Cheng	Texas A&M University
2:30 - 3:00 pm	<b>9-3:</b> SHYMAN – Sustainable Hydrothermal Manufacturing of Nanomaterials	Edward Lester	University of Nottingham
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>9-4:</b> Hydrothermal Synthesis of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> Spinel in a Continuous Flow Reactor	Karl Thomas Fehr	LMU Munich
4:00 - 4:30 pm	<b>9-5:</b> Numerical Simulation of Supercritical Water Flows in Continuous Hydrothermal Synthesis Reactors	Takashi Furusawa	Tohoku University
4:30 - 5:00 pm	<b>9-6:</b> Fluid mixing engineering on continuous supercritical hydrothermal synthesis	Shin-ichiro Kawasaki	National institute of Advanced Industrial Science and Technology
5:00 - 5:30 pm	<b>9-7:</b> Rearrangement of Organic-inorganic hybrid Cerium Oxide Nanocrystals during Tetrahydrofuran Annealing	Daisuke Hojo	Tohoku University

Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 10 – Materials: Nanomaterials</b> (Chair: Shouhua Feng, Jilin University)			
1:30 - 2:00 pm	<b>10-1:</b> Hydrothermal Soft Chemical Synthesis of {010}-Faceted Anatase TiO <sub>2</sub> Nanocrystals for High Performance Dye-Sensitized Solar Cells	Qi Feng	Kagawa University
2:00 - 2:30 pm	<b>10-2:</b> Solubility and Supersaturation in Hydrothermal Crystal Growth of ZnO	Maria Gelabert	Winthrop University
2:30 - 3:00 pm	<b>10-3:</b> Synthesis of TiO <sub>2</sub> mesoporous beads and its use in all-plastic dye-sensitized solar cell	Jyh-Ming Ting	National Cheng Kung University
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>10-4:</b> Novel Optical Properties from Solution-Derived Nanoparticles	Luiz Jacobsohn	Clemson University
4:00 - 4:30 pm	<b>10-5:</b> Fabrication of Artificial Photosynthesis Devices Using Hydrothermal Synthesis of Photocatalysts	Young Soo Kang	Sogang University

4:30 - 5:00 pm	<b>10-6:</b> Hydrothermal Preparation of High Efficient TiO <sub>2</sub> -Graphdiyne Photocatalyst	Dan Wang	Institute of Process Engineering
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Location: Room 102

Time	Title	Speaker	Affiliation
<b>Session 11 – Materials</b> (Chair: Juan Carlos Rendón-Angeles, Cinvestav)			
1:30 - 2:00 pm	<b>11-1:</b> Understanding the mechanism of formation of nanoporous materials under hydrothermal conditions by in situ X-ray techniques	Gopinathan Sankar	University College London
2:00 - 2:30 pm	<b>11-2:</b> Solvothermal Reactions For Novel Chemical Syntheses: From Graphene To MOFs	John Stride	University of New South Wales
2:30 - 3:00 pm	<b>11-3:</b> Microbial-Mineralization-Inspired Syntheses of Nanostructured Iron Oxides and Manganese Oxides with Controlled Crystal Phases	Hiroaki Imai	Keio University
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 3:45 pm	<b>11-4:</b> Spark Plasma Solvothermal Technique for the Formation of Graphitic Pattern - A Soft Solution Process (SSP)	Jaganathan Senthilnathan	National Cheng Kung University
3:45 - 4:00 pm	<b>11-5:</b> Solvothermal Synthesis of Acmite Conversion Coatings on Steel	Terence Whalen	Rutgers University
4:00 - 4:15 pm	<b>11-6:</b> Continuous hydrothermal synthesis of functional nanomaterials for high-performance textiles	Miquel Gimeno-Fabra	University of Nottingham
4:15 - 4:30 pm	<b>11-7:</b> Continuous Hydrothermal Synthesis of Stabilised Zinc Sulphide Nanoparticles with Fluorescent Properties	Miquel Gimeno-Fabra	University of Nottingham
4:30 - 5:00 pm	<b>11-8:</b> Vapor Phase Hydrothermal Synthesis: A New Approach for Fabrication of Nanomaterials	Huijun Zhao	Griffith University
5:00 - 5:30 pm	<b>11-9:</b> Synthesis of Semiconducting Chalcogenide Nanocrystals for Solar Cell Application	Ningzhong Bao	Nanjing University of Technology

## Tuesday, January 15<sup>th</sup> (Evening)

Location: Interior Courtyard

Time	Title
5:30 - 7:30 pm	<b>Reception:</b> Networking / ISHA Gold & Silver Winners Announcement

## Wednesday, January 16<sup>th</sup> (Morning)

Location: Tejas Dining Room

Time	Title
7:00 - 8:00 am	<b>Breakfast</b>

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Morning Ceremony</b>			
8:00 - 8:45 am	<b>ISHA Lifetime Achievement Award:</b> Feature and Future of Hydrothermal/Solvothermal Reactions for Synthesis/Preparation of Nano-Materials with Desired Shapes, Sizes and Structures	Masahiro Yoshimura	National Cheng Kung University
8:45 - 9:00 am	<b>Break</b>		

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 12 – Materials (Chair: Motonobu Goto, Nagoya University)</b>			
9:00 - 9:30 am	<b>12-1:</b> Hydrothermal Synthesis of Noncentrosymmetric Mixed Metal Oxide-Fluorides	Kenneth R. Poeppelmeier	Northwestern University
9:30 - 10:00 am	<b>12-2:</b> Hydrothermal access to oxide catalysts and sensors: From MARS methods to environmental applications	Greta Patzke	University of Zurich
10:00 - 10:30 am	<b>Break</b>		
10:30 - 11:00 am	<b>12-3:</b> Construction of a Series of Coordination Polymers Based on Tetracarboxylate Ligand: Synthesis, Structure, Gas Adsorption and Magnetic Properties	Yunling Liu	Jilin University
11:00 - 11:30 am	<b>12-4:</b> Novel Solution Processing and In situ Surface Modification of Metal Oxide Nanomaterials	Byron Byrappa	University Of Mysore
11:30 - noon	<b>12-5:</b> Hydrothermal Growth of Multifunctional YAG Single Crystals for Laser Applications: Teaching an Old Dog New Tricks	Joseph Kolis	Clemson University

Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 13 – Materials (Chair: Shu-Hong Yu, Hefei National Laboratory)</b>			
9:00 - 9:30 am	<b>13-1:</b> Hierarchical PbTiO <sub>3</sub> Nanostructures Grown by Self-Assembly of Nanocrystals during Hydrothermal Synthesis	Mari-Ann Einarsrud	Norwegian University of Science and Technology
9:30 - 10:00 am	<b>13-2:</b> Atomic-Scale p-n Junctions of Manganese Perovskite Oxides from Hydrothermal Systems	Shouhua Feng	Jilin University
10:00 - 10:30 am	<b>Break</b>		
10:30 - 10:45 am	<b>13-3:</b> Facile Synthesis of Au@TiO <sub>2</sub> Core-shell Hollow Spheres for Dye-sensitized Solar Cells	Jiang Du	University of Texas at Austin
10:45 - 11:00 am	<b>13-4:</b> Recycling of carbon fibre composites in supercritical hydrothermal conditions	Cyril Aymonier	University of Bordeaux
11:00 - 11:15 am	<b>13-5:</b> Single-step Transformation of SrMoO <sub>4</sub> Particles from SrSO <sub>4</sub> Ore Under Alkaline Hydrothermal Conditions	Joaquin Diaz Algara	Autonomous University of Baja California
11:15 - 11:30 am	<b>13-6:</b> Hydrothermal Synthesis and Characterisation of New Rare-Earth Orthochromite Perovskites La <sub>1-x</sub> Sm <sub>x</sub> CrO <sub>3</sub>	Luke Daniels	University of Warwick
11:30 - 11:45 am	<b>13-7:</b> New Applications of Hydrothermal Reactions in Creating Abnormal Materials Properties	Guangshe Li	Fujian Institute of Research



11:45 - noon	<b>13-8:</b> Synthesis and Development of Li-Cd nano Ferrites by Citrate Precursor Gel Method for Multilayers Chip Inductors Applications	Dachepalli Ravinder	Osmania University
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Location: Room 102

Time	Title	Speaker	Affiliation
<b>Session 14 – Materials</b> (Chair: Sridhar Komarneni, Penn State University)			
9:00 - 9:30 am	<b>14-1:</b> Hydrothermal Synthesis of CeO <sub>2</sub> with Hollow Architecture	Ranbo Yu	University of Science and Technology Beijing
9:30 - 10:00 am	<b>14-2:</b> Application of Hydro- and Solvo-Thermally Processed Ceramic Nanoparticles for OTN-NIR Biomedical Imaging	Kohei Soga	Tokyo University of Science
10:00 - 10:30 am	<b>Break</b>		
10:30 - 11:00 am	<b>14-3:</b> Exploration of New Inorganic SHG Materials based on Metal lodates	Jiang-Gao Mao	Fujian Institute of Research
11:00 - 11:15 am	<b>14-4:</b> Organics Assisted Selectively Doped and Codoped ZnO Nanoparticles by Hydrothermal and Solvothermal Processes for Enhancing Biological Activities	Namratha KeerthiRaj	University Of Mysore
11:15 - 11:30 am	<b>14-5:</b> Controllable Synthesis and Zn <sub>2</sub> + Adsorption of γ-MnO <sub>2</sub> Nanostructures	Chengxiang Liu	Tsinghua University
11:30 - 11:45 am	<b>14-6:</b> Synthesis of ZnO nano-whiskers in the presence of SDNS	Chengxiang Liu	Tsinghua University

Location: Tejas Dining Room

Time	Title
Noon - 1:30 pm	<b>Lunch</b>

## Wednesday, January 16<sup>th</sup> (Afternoon)

Location: Room 204 (Amphitheatre)

Time	Title	Speaker	Affiliation
<b>Session 15 – Sustainability</b> (Chair: Bushra Al-Duri, University of Birmingham)			
1:30 - 2:00 pm	<b>15-1:</b> Novel Structural Materials developed by CO <sub>2</sub> Sequestration of Mineral Silicates	Surojit Gupta	Rutgers University
2:00 - 2:30 pm	<b>15-2:</b> Carbonate Concrete: A Hydrothermal Technology for CO <sub>2</sub> Utilization and Construction	Richard (Rik) Riman	Rutgers University
2:30 - 3:00 pm	<b>15-3:</b> Hydrothermal Technology for Ore Treatment and Metal Recovery	Fathi Habashi	Université Laval
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>15-4:</b> Hydrothermal Recovery of Zn and Pb from MSWI Bottom Ashes and APC Residues	Amanda Günther	LMU Munich
4:00 - 4:30 pm	<b>15-5:</b> Single Step Transformation of Raw Minerals for Inorganic Compound Synthesis Under Hydrothermal Conditions	Juan Carlos Rendón-Angeles	Cinvestav

4:30 - 5:00 pm	<b>15-6:</b> Hydrothermal Conversion of Brominated Compounds to Alcohols in Aqueous Amphipathic Solution without Catalysts	Toshitaka Funazukuri	Chuo University
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Location: Room 101

Time	Title	Speaker	Affiliation
<b>Session 16 – Supercritical CO<sub>2</sub></b> (Chair: Brian Korgel, University of Texas at Austin)			
1:30 - 2:00 pm	<b>16-1:</b> Understanding supercritical CO <sub>2</sub> : from fundamental to industrial applications	Lourdes Vega	MATGAS
2:00 - 2:30 pm	<b>16-2:</b> CO <sub>2</sub> -expanded solvents: unique media for the synthesis of micro- and nano-particulate molecular materials with high structural homogeneity	Nora Ventosa	ICMAB-CSIC
2:30 - 3:00 pm	<b>16-3:</b> Fabrication of PVP Micro-Hollow Fiber by Electrospinning Process in Near-Critical CO <sub>2</sub>	Motonobu Goto	Nagoya University
3:00 - 3:30 pm	<b>Break</b>		
3:30 - 4:00 pm	<b>16-4:</b> Metal Deposition on Porous Supports Using Supercritical CO <sub>2</sub>	Albertina Cabañas	The Complutense University
4:00 - 4:15 pm	<b>16-5:</b> Extraction Kinetics for Dioxins-Contaminated Soil by Supercritical Carbon Dioxide with Methanol	Ming-Tsai Liang	I-Shou University
4:15 - 4:30 pm	<b>16-6:</b> Lycopene/Cyclodextrin Nanoparticle Formation Using Solution Enhanced Dispersion by Supercritical Fluid Process	Hazuki Nerome	Nagoya University
4:30 - 5:00 pm	<b>16-7:</b> Supercritical fluids for effective particle design processes	Michael Türk	Karlsruhe Institute of Technology
5:00 - 5:15 pm	<b>16-8:</b> Supercritical Carbon Dioxide-in-Water Foams Stabilized with Nanoparticle and Surfactant Amphiphiles	Andrew Worthen	University of Texas at Austin
5:15 - 5:30 pm	<b>16-9:</b> Switchable Ethoxylated Nonionic to Cationic Amine Surfactants for CO <sub>2</sub> Enhanced Oil Recovery in High Temperature, High Salinity Carbonate Reservoirs	Yunshen Chen	University of Texas at Austin

## Wednesday, January 16<sup>th</sup> (Evening)

Location: Interior Courtyard

Time	Title
5:30 - 7:00 pm	<b>Reception:</b> Networking / Wrap-Up

## Monday, January 14<sup>th</sup> (Evening)

Location: Interior Courtyard

Time	Title	Speaker	Affiliation
5:30 - 7:30 pm	<b>Reception: Poster Session and ISHA Graduate Student Poster Competition</b>		
	<b>P-1:</b> Silanization of Silica SBA-15 using Supercritical Carbon Dioxide	Albertina Cabañas	The Complutense University
	<b>P-2:</b> Synthesis of Carbonated Doped Hydroxyapatite Powders by Urea Decomposition Under by Hydrothermal Method	José Ricardo Escalona-González	Cinvestav
	<b>P-3:</b> Hydrothermal Conversion of 1-Bromododecane to 1-Dodecanol in Aqueous 2-Butanone Solution without Catalysts	Yuki Goto	Chuo University
	<b>P-4:</b> Influence Of Hydrothermal Alkaline Activation on the Co-Cr-Mo Biodur CCmplus 799 Alloy Compacts	Zully Matamoros Veloza	Technological Institute of Saltillo
	<b>P-5:</b> Effect of Phosphate Precursor on the Crystallization of Ca <sub>10</sub> -xMgx(PO <sub>4</sub> ) <sub>6</sub> (OH) <sub>2</sub> Solid Solutions Under Hydrothermal Conditions	Karla Montoya	Cinvestav
	<b>P-6:</b> Hydrothermal Conversion of Celluloses to Glucose and Cellooligosaccharides in Dilute Aqueous Formic Acid Solution	Shingo Ozawa	Chuo University
	<b>P-7:</b> Phase Transformation and Photoluminescence of CePO <sub>4</sub> Nano-wires	Pengfei Xu	University of Science and Technology Beijing
	<b>P-8:</b> Superparamagnetic Iron Oxide Nanoparticles Grafted with Sulfonated Copolymers are Stable in Concentrated Brine at Elevated Temperatures and Weakly Adsorb on Silica	Zheng Xue	University of Texas at Austin
	<b>ISHA Gold/Silver Participants</b>		
	<b>3-5:</b> Greener Synthesis of Metal Organic Frameworks in High Temperature Water	Peter Bayliss	University of Nottingham
	<b>1-4:</b> Solution-Grown Si and Ge Nanowires as High Capacity Anodes for Lithium-Ion Batteries	Timothy Bogart	University of Texas at Austin
	<b>16-9:</b> Switchable Ethoxylated Nonionic to Cationic Amine Surfactants for CO <sub>2</sub> Enhanced Oil Recovery in High Temperature, High Salinity Carbonate Reservoirs	Yunshen Chen	University of Texas at Austin
	<b>13-6:</b> Hydrothermal Synthesis and Characterisation of New Rare-Earth Orthochromite Perovskites La <sub>1-x</sub> Sm <sub>x</sub> CrO <sub>3</sub>	Luke Daniels	University of Warwick
	<b>13-5:</b> Single-step Transformation of SrMoO <sub>4</sub> Particles from SrSO <sub>4</sub> Ore Under Alkaline Hydrothermal Conditions	Joaquin Diaz Algara	Autonomous University of Baja California
	<b>13-3:</b> Facile Synthesis of Au@TiO <sub>2</sub> Core-shell Hollow Spheres for Dye-sensitized Solar Cells	Jiang Du	University of Texas at Austin
	<b>6-10:</b> The use of continuous hydrothermal synthesis in the formulation and functionalization of flame retardant polymers	Sherif Elbasuney	University of Nottingham
	<b>11-6:</b> Continuous hydrothermal synthesis of functional nanomaterials for high-performance textiles	Miquel Gimeno-Fabra	University of Nottingham
	<b>6-11:</b> Bifunctional, Non-precious Metal Perovskite Electrocatalysts with High Mass Activities for Water Oxidation and Oxygen Reduction	William Hardin	University of Texas at Austin
	<b>6-5:</b> Characterisation of Doped Perovskites Prepared by Hydrothermal Synthesis	Hilni Harunsani	University of Warwick
	<b>6-6:</b> New Metastable Ternary Metal Ruthenium Oxides from Low Temperature Hydrothermal Synthesis	Craig Hiley	University of Warwick
	<b>7-7:</b> Visible Light Driven Photoelectrochemical Water Oxidation on Nitrogen-Modified TiO <sub>2</sub> Nanowires	Son Hoang	University of Texas at Austin
	<b>5-6:</b> Watching chemistry happen: In situ studies of nanoparticle formation and growth in sub- and supercritical fluids	Kirsten M. Ø. Jensen	Aarhus University

	<b>14-4:</b> Organics Assisted Selectively Doped and Codoped ZnO Nanoparticles by Hydrothermal and Solvothermal Processes for Enhancing Biological Activities	Namratha KeerthiRaj	University Of Mysore
	<b>14-6:</b> Synthesis of ZnO nano-whiskers in the presence of SDNS	Chengxiang Liu	Tsinghua University
	<b>7-5:</b> Self-Seeded Growth of Germanium Nanowires: Coalescence and Ostwald ripening	Olan Lotty	University College Cork
	<b>7-4:</b> Monophenyl Silane Catalyzed Growth of Germanium Nanowires with Gold and Nickel Seeds	Xiaotang Lu	University of Texas at Austin
	<b>16-6:</b> Lycopene/Cyclodextrin Nanoparticle Formation Using Solution Enhanced Dispersion by Supercritical Fluid Process	Hazuki Nerome	Nagoya University
	<b>6-4:</b> Direct Synthesis of Oxides from Solvothermal Oxidation of Metallic Gallium	Helen Playford	University of Warwick
	<b>13-8:</b> Synthesis and Development of Li-Cd nano Ferrites by Citrate Precursor Gel Method for Multilayers Chip Inductors Applications	Dachepalli Ravinder	Osmania University
	<b>1-5:</b> Direct growth of silicon and germanium nanowires on metal foils: opportunities and challenges for high-throughput processing	Benjamin Richards	Cornell University
	<b>11-4:</b> Spark Plasma Solvothermal Technique for the Formation of Graphitic Pattern - A Soft Solution Process (SSP)	Jaganathan Senthilnathan	National Cheng Kung University
	<b>5-7:</b> Liquid Crystals of Zirconium Phosphate disks with Various Aspect Ratios Controlled through Hydrothermal Method	Min Shuai	Texas A&M University
	<b>11-5:</b> Solvothermal Synthesis of Acmite Conversion Coatings on Steel	Terence Whalen	Rutgers University
	<b>16-8:</b> Supercritical Carbon Dioxide-in-Water Foams Stabilized with Nanoparticle and Surfactant Amphiphiles	Andrew Worthen	University of Texas at Austin