Scientific Program

2nd International Conference on

Past and Present Research Systems of

Green Chemistry

September 14-16, 2015
Orlando, USA
## Scientific Program

### Day 1  September 14, 2015

**Continental Ballroom 6-8**

### Opening Ceremony

**08:30-08:55**

**Keynote Forum**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>08:55-09:00</td>
<td>Introduction</td>
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<tr>
<td>09:00-09:25</td>
<td>John Littleton</td>
<td>University of Kentucky, USA</td>
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<tr>
<td>09:25-09:50</td>
<td>Lothar Brecker</td>
<td>University of Vienna, Austria</td>
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### Special Session

**09:50-10:35**

**Green Chemistry: An opportunity for growth and competitive advantage**

**John C Warner**, Warner Babcock Institute for Green Chemistry, USA

**Networking & Refreshment Break 10:35-10:50 @ Foyer**

**Track 1: Basic Principles and New Trends in Green Chemistry**

**Track 3: Green Synthesis-Designing the Starting Materials**

**Track 4: Green Catalysis**

**Track 6: Green Metrics and Measurements**

**Session Chair: Joseph M Fortunak**, Howard University, USA

**Session Co-Chair: Dequan Xiao**, University of New Haven, USA

| Time          | Title                                                              | Speaker                                              | Institution                          |
|---------------|--------------------------------------------------------------------|------------------------------------------------------|
| 10:50-11:10   | Green pharmaceutical chemistry: Target-directed evolution of plant secondary metabolism | John Littleton                                       | University of Kentucky, USA          |
| 11:10-11:30   | Transition metal catalysis for non-directed C-H functionalization  | Marion Heidi Emmert                                 | Worcester Polytechnic Institute, USA  |
| 11:30-11:50   | Green chemistry and global access to medicines: New chemistry for access to HIV, Malaria, and Hepatitis medicines | Joseph M Fortunak                                   | Howard University, USA                |
| 11:50-12:10   | Rapid catalyst screening using a high pressure, Tandem micro-reactor GC/MS | Bob Freeman                                          | Frontier Laboratories Ltd., Japan     |
| 12:10-12:30   | Green chemistry in higher education                              | Amy S Cannon                                        | Beyond Benign, USA                    |
| 12:30-12:50   | Recent developments of the fixation of atmospheric co₂ by transition metals and lanthanide complexes | Salah S Massoud                                     | University of Louisiana at Lafayette, USA |

**Lunch Break 12:50-13:30 @ Continental Ballroom 2-4**

<p>| Time          | Title                                                              | Speaker                                              | Institution                          |
|---------------|--------------------------------------------------------------------|------------------------------------------------------|
| 13:30-13:50   | Exploring the mildest thermodynamic conditions for the inverse design of hydrogenation catalysts | Dequan Xiao                                          | University of New Haven, USA          |
| 13:50-14:10   | Efficient cubane catalysts for artificial water-splitting          | Sandra Luber                                         | University of Zurich, Switzerland     |
| 14:10-14:30   | SnO₂-PbS nanocomposites and hetero structures: Fabrication, structures and applications | Arik Kar                                              | University of Cambridge, UK           |
| 14:30-14:50   | The contribution of photochemistry and photocatalysis to Green Chemistry | Angelo Albini                                       | University of Pavia, Italy            |
| 14:50-15:10   | Practical catalytic hydrogenation                                   | Xumu Zhang                                           | The State University of New Jersey, USA |</p>
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<tr>
<td>15:10-15:30</td>
<td>Asymmetric heterogeneous catalysts based on copper(II) complexes with bis(oxazoline) ligands</td>
<td>Ana Rosa Silva</td>
<td>Aveiro University, Portugal</td>
</tr>
<tr>
<td>15:30-15:50</td>
<td>Green chemistry in niche applications: Development of “green” photoresists</td>
<td>Frank Wiesbrock</td>
<td>Polymer Competence Center Leoben, Austria</td>
</tr>
<tr>
<td>15:50-16:05</td>
<td>Networking &amp; Refreshment Break 15:50-16:05 @ Foyer</td>
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<tr>
<td>16:05-16:25</td>
<td>Pulsicaria glutinosa plant extract: A green and ecofriendly reducing agent for the preparation of highly reduced graphene oxide</td>
<td>Abdulrahman Al-Warthan</td>
<td>King Saud University, KSA</td>
</tr>
<tr>
<td>16:25-16:45</td>
<td>Leaf extract mediated Green synthesis of silver nanoparticles from Phyllanthus amarus: As an antibacterial agent against wide range of microbes</td>
<td>Jaya Parkash Yadav</td>
<td>M.D. University, India</td>
</tr>
<tr>
<td>16:45-17:05</td>
<td>Biogenic preparation of ZnO nanoparticles reduced from Ocimum tenuiflorum and their antioxidant activity</td>
<td>B Deva Prasad Raju</td>
<td>Sri Venkateswara University, India</td>
</tr>
<tr>
<td>17:05-17:25</td>
<td>Facile and eco-friendly method for the synthesis of magnesium oxide nanoparticles and their antioxidant properties</td>
<td>Nannepaga John Sushma</td>
<td>Sri Padmavati Women's University, India</td>
</tr>
<tr>
<td>17:25-17:45</td>
<td>Green synthesis of Ag, Au and Au-Ag bimetallic nanoparticles using C. albidum for catalytic application in electro-oxidation of methanol</td>
<td>Kehinde Oluseun Sodeinde</td>
<td>Federal University Oye-Ekiti, Nigeria</td>
</tr>
<tr>
<td>17:45-18:05</td>
<td>Synthesis, antibacterial, cytotoxicity and sensing properties of biopolymer-capped silver nanoparticles</td>
<td>Samuel Oluwatobi Oluwafemi</td>
<td>University of Johannesburg, South Africa</td>
</tr>
<tr>
<td>18:05-18:25</td>
<td>Suzuki-Miyaura Cross coupling reactions in water: New hydrophilic ligand scaffolds from Pincer compounds to cocoa beans</td>
<td>David Morales-Morales</td>
<td>Instituto de Química, Mexico</td>
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**Panel Discussions**

**Day 2**  September 15, 2015  Continental Ballroom 6-8

<table>
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<tr>
<td>09:00-09:25</td>
<td>Keynote Forum</td>
<td>Mahdi M Abu-Omar</td>
<td>Purdue University, USA</td>
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<tr>
<td>09:25-09:50</td>
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<td>Craig L Hill</td>
<td>Emory University, USA</td>
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<tr>
<td>09:50-10:10</td>
<td>Sustainability through catalysis: Making biofuels and chemicals from biomass</td>
<td>Mahdi M Abu-Omar</td>
<td>Purdue University, USA</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Natural products as active agents: On the border between sustainable application and risky use</td>
<td>Lothar Brecker</td>
<td>University of Vienna, Austria</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>Comparing the effect of ecofriendly adsorbents and bioturbators on the concentration pyrene</td>
<td>Febee Louka</td>
<td>University of Louisiana, USA</td>
</tr>
<tr>
<td>10:50-11:05</td>
<td>Networking &amp; Refreshment Break 10:50-11:05 @ Foyer</td>
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<td>11:05-11:25</td>
<td>Green fuel: Selective and water compatible catalysts for solar fuel production</td>
<td>Craig L Hill</td>
<td>Emory University, USA</td>
</tr>
<tr>
<td>11:25-11:45</td>
<td>Atom-economical and sustainable C-N bond formation reactions from alcohols and N-Sources via catalytic hydrogen transfer reactions</td>
<td>Soon H Hong</td>
<td>Seoul National University, South Korea</td>
</tr>
<tr>
<td>11:45-12:05</td>
<td>Atom and step economy in synthetic organic chemistry</td>
<td>Miguel Yus</td>
<td>University of Alicante, Spain</td>
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</tbody>
</table>

**Session Chair:** Mahdi M Abu-Omar, Purdue University, USA  
**Session Co-Chair:** Miguel Yus, University of Alicante, Spain  
**Session Introduction**
12:05-12:25 Organolithium chemistry using flow microreactors to Green Chemistry
Aiichiro Nagaki, Kyoto University, Japan

12:25-12:45 New versatile nanostructured catalysts: From green preparation to environmentally concerned challenges
Capucine Sassoye, UPMC University, France

12:45-13:05 Sustainable development of infrastructure for electric vehicles
Jennifer L Anthony, Kansas State University, USA

Green capillary electrophoretic stacking of analytes by ionic liquid collapse and its application coupled with ionic liquid based ultrasound assisted liquid extraction to acrylamides determination
Deia Abd El-Hady, University of Jeddah, KSA

Kinetic and thermodynamic profile of solifenacin succinate sorption from wastewater by humic acid-coated TiO₂ nanoparticles: An Approach towards Green Chemistry
Medhat A Shaker, University of Jeddah, KSA

14:05-14:45 De-polymerization of sugarcane bagasse lignin to value added products in sub and supercritical water
Sunil Joshi, National Chemical Laboratory, India

Towards sustainable surface processing and products through green chemistry and engineering
Kwang-Leong Choy, University College of London, UK

Triazole stabilized transition metal nanoparticles for 4-Nitrophenol reduction
Pengxiang Zhao, China Academy of Engineering Physics, China

14:45-15:05 Nanocatalysis and continuous-flow processing: Towards greener and more sustainable chemistry
Mostafa Baghbanzadeh, Harvard University, USA

15:05-15:25 Networking & Refreshment Break
15:25-15:45 Towards sustainable surface processing and products through green chemistry and engineering
Kwang-Leong Choy, University College of London, UK

Triazole stabilized transition metal nanoparticles for 4-Nitrophenol reduction
Pengxiang Zhao, China Academy of Engineering Physics, China

15:45-16:00 Poster Presentations @ Continental Ballroom 1-3

Day 3 September 16, 2015
Continental Ballroom 6-8

Track 5: Green Chemical Solvents
Track 7: New Ideas for Non Toxic By-Products
Track 9: Industrial Applications of Green Chemistry
Track 12: Green Chemistry and Engineering

Session Chair: Feng Xu, Merck Research Laboratories, USA
Session Co-Chair: Carmen Najera, University of Alicante, Spain
Session Co-Chair: Abel E Navarro, Borough of Manhattan Community College, USA

09:00-09:20 Green by design for process evolution: Asymmetric syntheses of vibegron
Feng Xu, Merck Research Laboratories, USA

09:20-09:40 Bioremediation of pollutants from pharmaceutical residual waters with marine algae and derivatives
Abel E Navarro, Borough of Manhattan Community College, USA

09:40-10:25 Greener Fenton processes for removal of persistent organic pollutants from wastewaters
Andreja Zgajnar Gotvajn, University of Ljubljana, Slovenia

10:40-11:00 Novel lignocellulosic hydrolysate detoxification using pyrochar from digestate: Application for bioethanol fermentation
Monlau Florian, INRA UMR IATE, France
11:00-11:20  Thermo-chemical pretreatments for the combined recovery of extractives and bioethanol production from Douglas-fir bark
Cecilia Sambusiti, INRA UMR IATE, France

11:20-11:40  Environmental impact assessment and bio-treatability potential of deep eutectic solvent based on holing chloride
Andreja Zgajnar Gotvajn, University of Ljubljana, Slovenian

11:40-12:00  SA Metrics-comparative sustainability metrics for biomass and petrochemical succinic acid production and its catalytic Valorization into γ-Butyrolactone
Marcelo E Domine, The Institute of Chemical Technology (ITQ), Spain

12:00-12:20  Cross-coupling reactions in aqueous media
Carmen Najera, University of Alicante, Spain

12:20-12:40  Atom economic synthesis of amides
Diego Gamba Sánchez, Universidad de los Andes, Colombia

12:40-13:00  Production of biofuels and biobased compounds in urban biorefineries: A new paradigm for green chemistry?
Aurore Richel, University of Liege – Gembloux Agro-Bio Tech, Belgium

Lunch Break 13:00-13:40 @ Continental Ballroom 2-4

13:40-14:00  Alternative ionic liquid-based Lignocellulosic biomass pre-treatment and fractionation towards progress in biorefinery
Ewa Bogel-Lukasik, Universidade Nova de Lisboa, Portugal

14:00-14:20  Thermodynamics and topological investigations of ternary mixtures containing ionic liquid with organic solvents: Excess molar volumes and excess isentropic compressibilities
Vinod Kumar Sharma, M D University, India

14:20-14:40  Industrial enzymes used to build green technology for Pre-treatment of textile dyeing
Hui Song, Chinese Academy of Sciences, China

14:40-15:00  Green chemistry as a tool to prevent pharmaceutical hazards and pollution
Gannu Praveen Kumar, Sahasra Institute of Pharmaceutical Sciences, India

15:00-15:20  Chromate and arsenate removal by layered double hydroxides-polymer beads
Nguyen Thi Kim Phuong, Institute of Chemical Technology, Vietnam

15:20-15:40  Shaped carbon nanomaterial supports based heterogeneous catalytic systems for various green routes of chemical synthesis
Vilas M Ravat, Reliance Industries Limited, India

Young Researchers Forum

15:40-15:55  Conversion of cellulose and lignocellulosic based feedstock over heterogeneous catalysts into liquid polyols
Katarina Fabicovicova, University of Technology Darmstadt, Germany

15:55-16:10  From batch to continuous conversion of bio-derived platform chemicals: Aqueous phase hydrogenolysis of furfuryl alcohol into 1,2-pentanediol using a trickle bed reactor
Dominik Gotz, Technical University Darmstadt, Germany

16:10-16:25  Selective extraction and separation of platinum group metals from chloride media using phosphonium based ionic liquid
Viet Tu Nguyen, Korea University of Science and Technology, Korea

16:25-16:40  A truly green synthesis of α-aminonitriles via Strecker reaction
Juliana M Velazquez, University of Texas Pan American, USA

Award Ceremony

Networking & Refreshment Break 16:40-17:00 @ Foyer

Bookmark your dates

3rd International Conference on
Past and Present Research Systems of Green Chemistry

September 19-21, 2016    Las Vegas, USA