

Scientific Program

6th International Conference on
Environmental Chemistry and Engineering

July 24-25, 2017 | Rome, Italy



Day 1 July 24, 2017

07:30-08:30 Registrations

Olimpica 2

08:30-08:40

Opening Ceremony

Keynote Forum

Introduction

08:40-09:25 **Title: Greener strategies for organics and nanomaterials: sustainable applications of magnetic nanocatalysts and modified graphitic carbon nitrides**

Rajender S. Varma, Palacky University, Czech Republic and Cincinnati, USA

09:25 -09:50 **Title: Valorizing Lignin**

Arthur Ragauskas, The University of Tennessee, USA

09:50-10:15 **Title: Novel heterogeneous catalysts and processes for biomass derivatives transformations into fuels and chemicals**

Marcelo E. Domine, Instituto de Tecnología Química (UPV - CSIC), Spain

10:15-10:40 **Title: Ionically conducting materials as effective catalyst supports with potential implementations in emissions control catalysis**

Ioannis V Yentekakis, Technical University of Crete, Greece

Networking & Refreshments 10:40-10:55 @ Foyer

Sessions: Green Catalysis | Green Synthesis/Reactions | Green Chemistry

Session Chair: Shuji Akai, Osaka University, Japan

Session Co-chair: Karine de Oliveira Vigier, University of Poitiers, France

Session Introduction

10:55- 11:15 **Title: Lipase-metal integrated catalysis for quantitative conversion of racemic alcohols into optically pure compounds**

Shuji Akai, Osaka University, Japan

11:15-11:35 **Title: Catalytic conversion of carbohydrates in the presence of choline chloride : Use of deep eutectic solvents**

Karine de Oliveira Vigier, University of Poitiers, France

11:35-11:55 **Title: Elucidation of the electronic structure of metal-oxo reactive species in porous media for the oxidation of methane and ethane**

Konstantinos D. Vogiatzis, The University of Tennessee, USA

11:55-12:15 **Title: Readily available homogeneous and heterogeneous catalysts for the cycloaddition of CO₂ to epoxides: A low carbon-footprint perspective**

Valerio D' Elia, Vidyasirimedhi Institute of Science and Technology, Thailand

12:15-12:35 **Title: A single enzymatic approach for deracemization of secondary alcohols**

Musa M. Musa, King Fahd University of Petroleum and Minerals, Saudi Arabia

12:35- 12:55 **Title: Flow microreactors enables green chemistry approach for organolithium chemistry**

Aiichiro Nagaki, Kyoto University, Japan

12:55-13:15 **Title: Expanding the reaction space of aldolases using hydroxypyruvate as a nucleophilic substrate**

Virgil Helaine, Université Clermont Auvergne, France

Group Photo

Lunch Break 13:15-14:00 @ Hotel Restuarant

Sessions: Environmental Chemistry | Environmental Toxicology and Mutagenicity | Renewable Energy Sources and Storages

Session Chair: Angelo Nacci, University of Bari, Italy

Session Co-chair: Maria Michela Dell'Anna, Polytechnic University of Bari, Italy

Session Introduction

- 14:00-14:20** **Title: An assessment of air quality in the surrounding holy places of Mecca, Saudi Arabia during Hajj**
Haider A Khwaja, University at Albany, USA
- 14:20-14:40** **Title: Nanostructured materials for green catalysis**
Angelo Nacci, University of Bari, Italy
- 14:40-15:00** **Title: Carbon-enhanced manufacturing and digitalization supporting cycle economy**
Dominik Rohrmus, Siemens AG, Germany
- 15:00-15:20** **Title: Catalytic activity and recyclability of polymer supported palladium or nickel nanoparticles in organic reactions in water**
Maria Michela Dell'Anna, Polytechnic University of Bari, Italy
- 15:20-15:40** **Title: A novel mechanism for BPA-triggered hepatic steatosis**
Sijun Dong, Institute of Urban Environment - CAS, China
- 15:40-16:00** **Title: Electrocatalytic production of hydrogen using iron sulfur cluster**
Khalaf M Alenezi, University of Hail, KSA

Networking & Refreshments 16:00-16:15 @ Foyer

- 16:15-16:35** **Title: Heavy metals in seawater from Marmara sea, Istanbul**
Gökberk Kara, Marmara University, Turkey
- 16:35-16:55** **Title: Dosing of proper oxidizing agents pretreatment to Kalatuwawa water to reduce the Trihalomethane (THM) formation in drinking water**
Jayalal L P R Wijesinghe, National Water Supply and Drainage Board, Sri Lanka
- 16:55-17:15** **Title: Preparation of Yb³⁺ doped microspherical BiOI and its photocatalytic activity for the degradation of rhodamine B in water**
Linping Zhang, Donghua University, China
- 17:15-17:35** **Title: Removal of Carbon Dioxide and Sulphur Dioxide from flue gas streams using membrane gas-liquid contactor**
Seyed Mojtaba Mirfendereski, Beheshti University, Tehran, Iran
- 17:35-17:55** **Title: Assessment of Polynuclear Aromatic Hydrocarbons (PAHs) in local steak (suya) samples in Makurdi town, Benue State-Nigeria**
Ubwa S T, Benue State University, Nigeria
- 17:55-18:15** **Title: Using electrocoagulation to remove chloride and ammonium from reject brine treated by solvay process**
Miada A Ali, United Arab Emirates University, UAE

Panel Discussion

Day 2 July 25, 2017

Olimpica 2

Keynote Forum

- 08:30 -08:55** **Introduction**
Title: Toward carbon fibers from single component kraft lignin systems: An application of green chemistry with forest biomaterials
Dimitris S. Argyropoulos, North Carolina State University, USA
- 08:55- 9:20** **Title: C-H free metal-organic green catalysts**
Sergiu. M. Gorun, Seton Hall University, USA

- 9:20- 09:45 **Title: Sustainable production means rational entropy management**
J. Michael Köhler, Technical University of Ilmenau, Germany
- 09:45-10:10 **Title: Novel macroporous cryogels with enhanced adsorption capability for the removal of Cu(II) ions from aqueous phase: Modeling, kinetics and recovery studies**
Ufuk Yildiz, Kocaeli University, Turkey

Networking & Refreshments 10:10-10:25 @ Foyer

Sessions: **Green Materials | Green Energy | Green Chemistry**

Session Chair: **Vassiliki-Alexandra Glezakou**, Pacific Northwest National Laboratory, USA

Session Co-chair: **Takeo Sasaki**, Tokyo University of Science, Japan

Session Introduction

- 10:25-10:45 **Title: Molecular simulations turn 'green': An integrated approach to accelerate the development of CO₂ capture solvents**
Vassiliki-Alexandra Glezakou, Pacific Northwest National Laboratory, USA
- 10:45-11:05 **Title: Photo-detachable adhesives composed of photo-depolymerizable Poly(olefin sulfone)s**
Takeo Sasaki, Tokyo University of Science, Japan
- 11:05-11:25 **Title: Vanillin: A renewable and versatile platform chemical for sustainable polymers**
Joseph F. Stanzione III, Rowan University, USA
- 11:25-11:45 **Title: Hydrogen peroxide - oxidation reactions under microwave irradiation**
Dariusz Bogdal, Cracow University of Technology, Poland
- 11:45-12:05 **Title: Supercritical fluid technology for greener processes**
Youn-Woo Lee, Seoul National University, Korea
- 12:05-12:25 **Title: Graphene-based material for oil spill removal**
Annalisa Pola, Directa Plus SpA , Italy
- 12:25-12:45 **Title: Chemical markers for the characterization of bioaerosol**
Francesca Buiarelli, University of Rome "La Sapienza", Italy

Group Photo

Lunch Break 12:45-13:30 @ Hotel Restuarant

- 13:30-13:50 **Title: Clean and sustainable liquid hydrogen storage materials**
Chang Won Yoon, Korea Institute of Science and Technology, Republic of Korea
- 13:50-14:10 **Title: Challenges of green chemistry for value added products**
Ahindra Nag, Indian Institute of Technology, Kharagpur, India
- 14:10-14:30 **Title: Waste biomass derived aqueous extracts as alternative green solvent media for organic transformations**
Diganta Sarma, Dibrugarh University, India
- 14:30-14:50 **Title: Water quality of the Chelif river in the Mostaganem area (North-West of Algeria)**
Batoul Benkaddour, Mostaganem University, Algeria
- 14:50-15:10 **Title: Global atmospheric emissions of toxic heavy metals from anthropogenic sources under multi-scale regions**
Hezhong Tian, Beijing Normal University, China
- 15:10-15:30 **Title: Removal of oil hydrocarbons using the grass *Panicum máximum* and a bacterial consortium in contaminated soil**
S M Contreras-Ramos, CIATEJ, Mexico

Workshop

- 15:30-16:20 **Title: Sustainable processing of biomass and its derivatives**
Marcelo E. Domine, Instituto de Tecnología Química (UPV - CSIC), Spain

Networking & Refreshments 16:20-16:35 @ Foyer

Poster Presentations 16:35- 17:35 @ Foyer

Poster Judges: Dariusz Bogdal, Cracow University of Technology, Poland

Ufuk Yildiz, Kocaeli University, Turkey

- EGCPP01** **Title: Green synthesis of new chiral halogenated imines derived from Benzo[b]thiophene-2-carboxaldehyde**
Andrea Moreno-Ceballos, Universidad Autónoma de Puebla, Mexico
- EGCPP02** **Title: Green synthesis of chiral imines and their Zn(II) complexes**
Daniela Gutiérrez, Universidad Autónoma de Puebla, Mexico
- EGCPP03** **Title: Green synthesis of a chiral imine and its Pd(II) complex**
Gloria E. Moreno, Universidad Autónoma de Puebla, Mexico
- EGCPP04** **Title: Solvent-free mechanochemical obtention of phenol-N-aminal aggregates**
John Sadat-Bernal, Universidad Militar Nueva Granada (UMNG), Colombia
- EGCPP05** **Title: Solvent-free procedure for the synthesis of tetrahydrosalen (H₄salen) ligands by a solid state reaction using sodium borohydride as a reducing agent**
Jaime Ríos-Motta, Universidad Nacional de Colombia, Colombia
- EGCPP06** **Title: Green synthetic approaches for medium ring-sized and linear Benzylimidazolidine oligomers**
Augusto Rivera, Universidad Nacional de Colombia, Colombia
- EGCPP07** **Title: Prediction of cellulose dissolution in ionic liquids using molecular descriptors based QSAR model**
Chan Kyung Kim, Inha University, Korea
- EGCPP08** **Title: Methane steam reforming through shell-and-tube heat exchanging reformer to improve heat transfer rate from low temperature heat source**
Sangseok Yu, Chungnam National University, South Korea
- EGCPP09** **Title: Two-dimensional inorganic electride promoted electron transfer efficiency in transfer hydrogen reactions of carbon-carbon multiple bonds**
Ye Ji Kim, Sungkyunkwan University, Republic of Korea
- EGCPP10** **Title: Enhanced GABA production via protein complex of *Pyrococcus horikoshii* glutamate decarboxylase and *Escherichia coli* GABA transporter**
Soon Ho Hong, University of Ulsan, Korea
- EGCPP11** **Title: Ammonia borane as hydrogen storage material: Study of some of its clusters**
Cacier Zilahy Hadad, Universidad de Antioquia, Colombia
- EGCPP12** **Title: Accelerated solvent extraction as an alternative tool for extraction of chlorogenic acid from *Cynara scolymus* leaves**
Ibrahim Ahmed Saleh, National Research Centre, Egypt
- EGCPP13** **Title: Manganese-salen complex immobilized on reduced graphene oxide: A recyclable catalyst for aerobic enantioselective epoxidation of olefins**
Hassan Hosseini-Monfared, University of Zanjan, Iran
- EGCPP14** **Title: Comparison of net GHG emissions between separated system and crop-swine integrated system in the North China Plain**
Zhejin Li, China Agricultural University, China
- EGCPP15** **Title: Dehydration of sugars from grape juice waste by Microwave Radiation**
Almudena Lorente, University of Castilla La Mancha (UCLM), Spain
- EGCPP16** **Title: Structure and Electrochemical properties of recycled active electrodes from spent lead acid battery and modified with different manganese dioxide contents**
Simona Rada, Technical University of Cluj-Napoca, Romania
- EGCPP17** **Title: Survey analysis of dental ceramic materials based on yttria oxide-stabilized zirconia**
Marius Rada, National Institute for R&D of Isotopic and Molecular Technologies, Romania
- EGCPP18** **Title: Low-temperature hydrogenation of carbon dioxide to methanol using a homogeneous cobalt catalyst**
Rauf Razzaq, Leibniz-Institute for Catalysis e.V. University of Rostock, Germany

- EGCPP19** **Title: Metal-free aerobic oxidative coupling of thiols for synthesis of disulfides and sulfenamides**
Liting Yang, Zhengzhou University, China
- EGCPP20** **Title: Ab initio calculation of structural and elastic properties of Mg₂Sn and Mg₂Pb compounds**
Yassine Chaouche, University of Larbi Tébessi, Algeria
- EGCPP21** **Title: Efficient extraction and functionalization of cellulose nanocrystals through hydrochloric acid hydrolysis under hydrothermal conditions**
Miao Cheng, Donghua University, China
- EGCPP22** **Title: Design and development of an advanced solar module for a cruiser vehicle**
Alberto Lucci, University of Bologna, Italy
- EGCPP23** **Title: Using finite elements for improving the sustainability in ceramic processes**
Giuseppe Lucisano, University of Bologna, Italy
- EGCPP24** **Title: Investigation of impact in biocomposites for application in solar vehicles**
Felipe Vannucchi de Camargo, University of Bologna, Italy
- EGCPP25** **Title: Assessing the vulnerability of freshwater fish in Canada's eastern boreal to climate change**
Michael van Zyll de Jong, Memorial University, Canada
- EGCPP26** **Title: Hydrophobic sorption of the soil treated with giant *Miscanthus*-derived biochar as a function of aging period**
Seunghun Hyun, Korea University, South Korea
- EGCPP27** **Title: Characteristics of bio-oil produced by the Pyrolysis of mixed waste tire and biomass**
Ozlem Onay, Anadolu University, Turkey
- EGCPP28** **Title: Treatment of hazardous waste incineration plant effluent by novel hydrogels**
Ömer F Kemik, İZAYDAŞ, Turkey
- EGCPP29** **Title: Lithium tetrathiafulvalene carboxylate assisted inductively coupled plasma mass spectrometry determination of total mercury in air particulate matter supported by electrochemical study of preservation effects**
Maja Budanovic, Nanyang Technology University, Singapore
- EGCPP30** **Title: Biological nutrient removal: The effect of organic load**
Tea Širac, University of Zagreb, Croatia
- EGCPP31** **Title: Numerical and experimental investigation of mixture uniformity and predicted performance of Urea-SCR system with vanadium-based catalysts based NH₃-Temperature programming desorption experiment**
Changhee LEE, Songwon University, South Korea
- EGCPP32** **Title: Physicochemical and bacteriological analyses of water samples from hand dug wells in Lafia metropolis, Nasarawa State, Nigeria**
Abel Augustine, Federal University Lafia, Nigeria
- EGCPP33** **Title: COX free hydrogen production for fuel cell applications using cobalt incorporated carbon supported material**
Aytak Mammadli, Gazi University, Turkey
- EGCPP34** **Title: Development of a simple biogas digester as a source of renewable energy and sustainable livelihood**
Lamfu Fabrice Yengong, University of Buea, Cameroon
- EGCPP35** **Title: Determination of residues levels of seven pesticides in tomatoes samples taken from three markets in Khartoum state**
Ahmed Hammad, University of Khartoum, Sudan

Panel Discussion

