

3rd International Conference on

Chemical Engineering

October 02-04, 2017 | Chicago, USA

ZURICH

conference**series**.com 10:00-10:30

Opening Ceremony

Keynote Forum

Introduction

10:30-11:10 **Title: Techno-economic data and feasibility of hydrogen production from biogas using a novel low cost Ni-based reforming catalyst derived from metallurgical residues**
 Nicolas Abatzoglou, Université de Sherbrooke, Canada

Networking & Refreshment Break 11:10-11:30 @ Foyer

11:30-12:10 **Title: Crossing the gap between research and market in chemical engineering: Application to supercritical technology**
 Ignacio Gracia, University of Castilla-La Mancha, Spain

12:10-12:50 **Title: The past and future of enhanced oil and gas extraction in the United States**
 Davis L. Ford, The University of Texas, USA

Panel Discussions

Sessions: **Chemical Engineering | Electrochemistry and Electrochemical Engineering | Biochemical Engineering**

Session Chair: **Ignacio Gracia**, University of Castilla-La Mancha, Spain

Session Co-chair: **Jong Moon Park**, Pohang University of Science and Technology, South Korea

Session Introduction

12:50-13:20 **Title: Opportunities for innovation in chemical industry**
 Anil Oroskar, Orochem Technologies Inc., USA

Group Photo @ ZURICH

Lunch Break 13:20-14:10 @ Athens

14:10-14:40 **Title: Preventing thermal runaway propagation in li-ion batteries**
 Said Al-Hallaj, University of Illinois, Chicago, USA

14:40-15:10 **Title: Identifying electrochemical limitations of solar energy storage**
 Luca Gael Bertoluzzi, Stanford University, USA

15:10-15:40 **Title: Enhancement of cyanobacterial ethanol production by co-factor engineering**
 Jong Moon Park, Pohang University of Science and Technology, South Korea

Panel Discussions

Networking & Refreshment Break 15:40-16:00 @ Foyer

16:00-16:30 **Title: Highly efficient oxygen-deficient reduced TiO_{2-x} for sunlight-induced water splitting for H_2 generation**
 Jong-Sung Yu, Daegu Gyeongbuk Institute of Science & Technology, South Korea

16:30-16:50 **Title: An ultra scale-down method to predict diafiltration performance during formulation of concentrated mAb solutions**
 Lara Fernandez-Cerezo, University College London, UK

Panel Discussions 16:50-17:00

Keynote Forum

09:30-10:00 Introduction

10:00-10:40 Title: Microwave applications in petroleum processing
Adango Miadonye, Cape Breton University, Canada

Networking & Refreshment Break 10:40-11:00 @ Foyer

11:00-11:40 Title: Computational fluid dynamics modeling and simulations of fluidized beds for chemical looping combustion
Mr. Ramesh Agarwal, Washington University, USA

Panel Discussions

Sessions:

Chemical Polymer Technology | Thermodynamics | Environmental and Sustainable Chemical Engineering

Session Chair: Ying Liu, University of Illinois, USA

Session Introduction

11:40-12:10 Title: Colloidal methods for the fabrication of advanced electrodes for electrochemical supercapacitors

Igor Zhitomirsky, McMaster University, Canada

12:10-12:40 Title: Reduction on water consumption on a cooling tower with the application of a novel biocide

Anderson Beber, Solenis Water Technologies, Brazil

12:40-13:10 Title: Pre-and post-combustion NO_x control system with hydrogen assistance and using microwave technology for biogas engines

Valentino Tiangco, Sacramento Municipal Utility District, USA

Panel Discussions

Lunch Break 13:10-14:00 @ Athens

14:00-14:30 Title: Polymeric nanoparticles encapsulating hydrophobic compounds for drug delivery
Ying Liu, University of Illinois, USA

14:30-15:00 Title: Artificial biomembrane models using polymer giant vesicles: Morphological changes and enhanced permeability of the vesicles by incorporation of ionic segments into the polymer amphiphiles

Eri Yoshida, Toyohashi University of Technology, Japan

15:00-15:30 Title: Systematic generation of reaction pathways for manufacturing bulk industrial chemicals from carbon- neutral feedstocks

Rakesh Govind, University of Cincinnati, USA

15:30-16:00 Title: Polymer thermodynamics for pharmaceutical applications

Sabine Enders, Karlsruher Institut für Technologie (KIT), Germany

Networking & Refreshment Break 16:00-16:20 @ Foyer

16:20-16:40 Title: Experimental solubility study on the high-pressure absorption of small molecules in ethanol oxidation reactions

Kirsten Grubel, Ruhr-University Bochum, Germany

Panel Discussions 16:40-16:50

Poster Presentations 16:50-17-10

Title: The definition of the integral characteristics of the process of formation of cavitation bubbles when operating the control valve

Anna Kapranova, Yaroslavl State Technical University, Russia

Title: The study of the volume fraction of key component in the second phase of the portion mixing by means of the device of gravity type

Anna Kapranova, Yaroslavl State Technical University, Russia

Title: Electrochemical carbon dioxide conversion system

Md Obaidullah, Chungbuk National University, South South Korea

Day 3 October 04, 2017

ZURICH

Keynote Forum

09:50-10:00 Introduction

10:00-10:40 **Title: Description of the molecules of heavy oil cuts and their thermodynamic properties to improve physical and chemical kinetic modelling**

Melaz Tayakout Fayolle, University of Lyon, France

Networking & Refreshment Break 10:40-11:00 @ Foyer

Sessions:

Petroleum Refining and Petrochemicals | Chemical Reaction Engineering | Chemical Industry and Market Analysis | Biofuels

Session Chair: M. Angeles Martin Luengo, Consejo Superior de Investigaciones Científicas (CSIC), Spain

Session Introduction

11:00-11:30 **Title: Sustainable chemical engineering of renewable resources**

M. Angeles Martin Luengo, Consejo Superior de Investigaciones Científicas (CSIC), Spain

11:30-12:00 **Title: Biomolecular engineering of elastin protein for cell transplantation**

Mr. Won Bae Jeon, Daegu Gyeongbuk Institute of Science and Technology, South South Korea

12:00-12:30 **Title: Theory and application practice of the binary mixtures sol-gel transition concept for fire and explosion prevention**

Denis S Kuprin, Saint Petersburg State University, Russia

12:30-13:00 **Title: The shift of raw materials from oil, coal and natural gas to biomass and residues**

Daniela Almeida Streitwieser, Universidad San Francisco de Quito USFQ, Ecuador

Lunch Break 13:00-13:45 @ Athens

13:45-14:15 **Title: Nanocomposite of polyacrylamide-rGO-Ag-PEDOT/PSS hydrogels by photo polymerization method**

Yoon Kuk Ro, Hannam University, South Korea

Panel Discussions 14:15-14:25

14:25-14:55 **Title : Hybrid metal-Cu₂S nanostructures as efficient co-catalysts for photocatalytic hydrogen generation**

Jong-Soo Lee, Daegu Gyeongbuk Institute of Science and Technology, South South Korea

14:55-15:25 **Title: Smart bioactive compounds: Their synthesis and potential application in biodiesel oxidation stability enhancement**

Anuchaya Devi, Tezpur University, India

15:25-15:55 **Title: Comparison of pid parameter using multiple dominant poleplacement technique with other techniques for stable third order processes**

Ch V Naga Sowjanya, Sri Venkateswara University, India

Networking & Refreshment Break 15:55-16:10 @ Foyer

Closing and Award Ceremony

