## 2016 Spring & 12th GCPS Poster Sessions

Monday, April 11, 2016, 5:00 PM - 7:00 PM - Exhibit Hall E, George R. Brown Convention Center

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| BOARD<br>NUMBER | Abstract Title   | First Name     | Last Name      | Paper<br>Number |
|-----------------|--|----------------|----------------|-----------------|
| 0               | Preparation and Characterization of (FURCRAEA spp) as<br>Green' upport of Iron Nanostructured Catalyst   | Karen Giovanna | Bastidas Gómez | 63b             |
| 0               | Preparation and Characterization of (FURCRAEA spp) as<br>Green' gupport of Iron Nanostructured Catalyst  | Anamaria       | Barrera Bogoya | 63b             |
| 2               | Comparative Analysis of Molecular Structure Identifiability Based on Signatures and Descriptors  | Zelimir        | Kurtanjek      | 63s             |
| 3               | Hydrogen Disposal Flare System Hazard Identification and Mitigation Analysis   | Alan           | Sutton         | 63ah            |
| 4               | Enhanced Furfural Production By an Innovative Bottom<br>Dividing Wall Column with a Decanter Configuration   | Van Duc Long   | Nguyen         | 63aj            |
| 5               | Improvement of the Reactive Distillation   | Van Duc Long   | Nguyen         | 63au            |
| 6               | The Principle of Intrinsic Reality: Solving the World's Woes through Chemical Engineering and Economics  | Jed Moyano     | Bellen         | 63a             |
| 7               | Syngas to Ethylene Glycol: A Technology Overview   | Muhammad       | Imran          | 63x             |
| 8               | Significance of Energy Intensity and GHG Emission Reduction<br>Towards Sustainability of a Petrochemical Plant   | Muhammad       | Imran          | 128b            |
| 9               | Oxidative Dehydrogenation of n-Butane on Carbon Catalysts  | Sungwon        | Park           | 63be            |
| 10              | Using a Large Data Bank to Develop a Robust and Simple Model to Estimate the Saturation Pressure of Oil Reservoirs   | Adel           | Elsharkawy     | 63bb            |
| 11              | Identifying Gas Liquid Contactor Performances for<br>Optimized Natural Gas Desacidification Amines Units - from<br>Process Calculations to Experimental Strategy | Pascal         | Alix           | 63d             |
| 12              | Measurement and Correlation of the Mutual Solubility of<br>Diisopropylamine + Water and Triethylamine + Water<br>Systems at High Pressure                        | Pingfang       | Yuan           | 63e             |
| 13              | Novel Microwave Synthesis Carbon Dots from PINE Bark and Its Application for Heavy Metal Sensing   | Saheed         | Sanni          | 63g             |
| 14              | Experimental and Numerical Study of Transport Phenomenon of Falling Film Flow with Different Heating Methods   | Xiaoyu         | Quan           | 63h             |
| 15              | Thermodynamic Anaysis of Dehydration of n-Propanol Using Heterogeneous Azeotropic Distillation   | Janakey Devi   | V. K. P.       | 63j             |
| 16              | Functionalization of OH-Terminated Nanoparticles By Cyclic Azasilanes  | Oleg A.        | Mazyar         | 63k             |

|                 | # 63 - Poster Session - 2016 Spring Meeting  |                  |                        |                 |  |  |
|-----------------|--|------------------|------------------------|-----------------|--|--|
| BOARD<br>NUMBER | Abstract Title   | First Name       | Last Name              | Paper<br>Number |  |  |
| 17              | Study of Ionic Liquids As Entrainers for the Extractive Distillation of N-Propanol and N-Propyl Acetate Binary Azeotropic Mixture and the Isobaric VLE Studies of the System | Ankitha Theres   | George                 | 63I             |  |  |
| 18              | Copper-Phyllosilicate Core-Shell Nanocatalysts with<br>Balanced Active Sites for Carbon-Oxygen Hydrogenolysis<br>Reactions   | Jiankang         | Ying                   | 63m             |  |  |
| 19              | Improving High Shear Rate Friction Reduction Behavior of Polyacrylamide-Based Fracturing Fluids Using Xanthan Gum  | Mehdi            | Habibpour<br>Rezaabadi | 63n             |  |  |
| 20              | Stimuli-Responsive Rubber in Oil and Gas Application   | Rostyslav        | Dolog                  | 63o             |  |  |
| 21              | New Development on Hoist Scheduling with the Relaxation of Cyclic Precondition   | Honglin          | Qu                     | 63p             |  |  |
| 22              | Formal Modeling of Accidents and Automatic Generation of Tutoring Scenarios for Intelligent Safety Training of Process Operators   | Dongil           | Shin                   | 63q             |  |  |
| 23              | Biogas Reforming with Addition of Carbon Dioxide to Syngas<br>over Ni-Based Bimodal Pore Catalyst  | Fei              | Yu                     | 63v             |  |  |
| 24              | Multiscale Simulation of Proteins Motion in the Microchannel   | Mohammadrez<br>a | Samieegohar            | 63w             |  |  |
| 25              | Electrospun Nanocomposite Fibers for the Removal of<br>Heavy Metals in Water   | Yang             | Lu                     | 63y             |  |  |
| 26              | Grand Challenges in Future Energy and Chemicals: Climate Change and Sustainability As Drivers for New Technology and Innovation  | Joseph B.        | Powell                 | 63z             |  |  |
| 27              | Heavy Metal Detection in Treated Water Via a Fabric Nanocomposite Sensor   | Guoqiang         | Yu                     | 63aa            |  |  |
| 28              | Optimization of Layered Graphene Oxide Nanostructures through Controlling the Membrane Deposition Rate Towards Size-Sieving Separation                                       | Weiwei           | Xu                     | 63ab            |  |  |
| 29              | Ozone Source Apportionments of Local Anthropogenic<br>Emissions  | Jian             | Zhang                  | 63ac            |  |  |
| 30              | Robust Design of a Radiant Wall Burner for a High<br>Temperature Environment Utilizing Computational Fluid<br>Dynamics Simulations   | Addison          | Cruz                   | 63ad            |  |  |
| 31              | Flare Minimization and Emission Characterization during Start-Ups of Chilling Train in Ethylene Plants   | Cuixia           | Xu                     | 63ae            |  |  |
| 32              | Purification of Ibuprofen Enantiomers By a New Technique Combining Distillation and Crystallization  | Lie-Ding         | Shiau                  | 63af            |  |  |
| 33              | Flow Field Simulation and Distribution Performance Analysis of a Gas Pipe Distributor in Fccu  | Yaodong          | Wei                    | 63ag            |  |  |
| 34              | Thermodynamic Modeling of Aqueous Lithium Sulfate and Its Solubility in the Presence of Na+, K+ and Mg2+ Sulfates  | Samira           | Abedi                  | 63ai            |  |  |

| # 63 - Poster Session - 2016 Spring Meeting |  |              |           |                 |  |
|---|--|--------------|-----------|-----------------|--|
| BOARD<br>NUMBER                             | Abstract Title   | First Name   | Last Name | Paper<br>Number |  |
| 35  | Insight into the Mechanism of Toxic Chromium (VI) from Wastewater Using Magnetite Coated PINE Powder               | Agnes        | Pholosi   | 63ak            |  |
| 36  | Thermodynamic Modeling of HNO3-H2so4-H2o Ternary System with Symmetric Electrolyte NRTL Model                      | Harnoor      | Kaur      | 63al            |  |
| 37  | Continuously Adjustable, Molecular-Sieving "Gate" on 5A Zeolite for Distinguishing Small Organic Molecules By Size | Zhuonan      | Song      | 63am            |  |
| 38  | Dissolution and Precipitation of Minerals Under Different<br>Alkali Concentrations in a Reactive CO2 Batch System  | Hyukmin      | Kweon     | 63ao            |  |
| 39  | A Computational Analysis of Fire Scene for Safety in a<br>Compartment  | Ki-Jeong     | Kong      | 63ar            |  |
| 40  | Optimization of Heat Exchanger Network in Steam Assisted<br>Gravity Drainage Oil Sands Surface Facilities          | Eun B.       | Cho       | 63at            |  |
| 41  | Modeling the Thermal Behaviors of an Ultracapacitor Module   | Sung June    | Park      | 63av            |  |
| 42  | Modeling the Electrolyte Flow Behaviors of a Zinc/Bromine Flow Battery Module                                      | Boram        | Коо       | 63aw            |  |
| 43  | Observer-Based Model Predictive Control for Time-Delay Systems   | Xinghua      | Pan       | 63ax            |  |
| 44  | A Refined Non-Random Two-Liquid Segment Activity Coefficient Model for Solubility Modeling                         | Yifan        | Нао       | 63az            |  |
| 45  | Explaining the Paradox of Asphaltene Precipitation with n-Alkanes  | M. R.        | Islam     | 63ba            |  |
| 46  | Blowdown Dynamic Modeling and Analysis of Pressure and<br>Temperature  | Kyungwoon    | Kim       | 63bf            |  |
| 47  | Development R&D of Manoir Industries and Emphasis on Coating   | Hugues       | Chasselin | 63bh            |  |
| 48  | Organic Solar Cells  | Avanindra    | Jaiswal   | 63ay            |  |
| 48  | Organic Solar Cells  | Naresh       | Samnerkar | 63ay            |  |
| 48  | Organic Solar Cells  | Satinder Pal | Singh     | 63ay            |  |
| 50  | Technical Reconstruction of Double Effect Distillation for Methanol Process  | Jinsheng     | Sun       | 63ap            |  |
| 51  | Technical Reconstruction of Double Effect Distillation for<br>Methanol Process                                     | Chengtian    | Cui       | 63ap            |  |
| 52  | Experimental Study on Najas Minor of Producing Bio-Oil   | Jinsheng     | Sun       | 63r             |  |
| 53  | A Combined Rheology and Stability Study on Emulsified Acid for High Temperature Applications                       | Abdullah S.  | Sultan    | 63aq            |  |

| # 63 - Poster Session - 2016 Spring Meeting |  |             |           |                 |
|---|--|-------------|-----------|-----------------|
| BOARD<br>NUMBER                             | Abstract Title   | First Name  | Last Name | Paper<br>Number |
| 54  | Development of Novel Emulsified Acid Using Waste Oil   | Abdullah S. | Sultan    | 63as            |
| 55  | Stability and Rheology of Emulsified Acid in Waste Oil: Effect of Emulsifier Concentration, Mixing Speed, Temperature and Droplet Size | Abdullah S. | Sultan    | 63bc            |
| 56  | Molecular Simulation of Controlling Ions and Their Role in<br>Low Salinity IOR for Carbonate Reservoirs                                | Abdullah S. | Sultan    | 63bg            |