Sunday, May 24, 2015

L04—Electrocatalysis 7

Abst# 1806 Mechanistic Study of Palladium Based Electrocatalysts for Direct Borohydride Oxidation by Christoph Grimmer, Graz University of Technology; Maximilian Grandi, Graz University of Technology; Robert Zacharias, Graz University of Technology; Theo Friedrich, Graz University of Technology; Dieter Woisetschläger, VTU Engineering GmbH; Nicole Mayer, proionic GmbH; Michael Koncar, VTU Engineering GmbH; Roland Kalb, proionic GmbH; Viktor Hacker, Graz University of Technology

Monday, May 25, 2015

A02—Lithium-Ion Batteries and Beyond

Abst# 246 Three-Dimensional Porous Current Collectors As Electrodes for Li/S Battery Applications by Babu Ganguli, Wayne State University; Leela Arava, Wayne State University

Abst# 268 A Novel Silicon/Graphite/Carbon Composite Anode for High Performance Lithium Ion Batteris by Se-Won Kim, Samsung Fine Chemicals; Jong-Seok Moon, Samsung Fine Chemicals; Kyu-Eun Shim, Samsung Fine Chemicals; Ju-Myeung Lee, Samsung Fine Chemicals; Sung-Nim Jo, Samsung Fine Chemicals; Tae-Hwan Yu, Samsung Fine Chemicals; Jeong-Ju Cho, Samsung Fine Chemicals

A03—Stationary and Large-Scale Electrical Energy Storage Systems 5

Abst# 663 Simulation and Mechanism Analysis of Electrochemistry of the Vanadium Redox Couples By a Rotating Disk Electrode by Jianxin Pan, Tsinghua University; Xue Li, Tsinghua University; Yubin Zhao, Tsinghua University; Xiaofeng Xie, Tsinghua University; Vijay Ramani, Illinois Institute of Technology

B04—Endofullerenes and Carbon Nanocapsules

Abst# 822 Electrochemical Activation of the Least Reactive Endohedral Fullerene: $Sc_3N@I_h$-C_{80} by Danisha Rivera-Nazario, University of Texas at El Paso; Marta Izquierdo, Universidad Complutense de Madrid; Salvatore Filippone, Universidad Complutense de Madrid; Nazario Martin, IMDEA-Nanociencia; Luis Echegoyen, University of Texas at El Paso

E01—Metallization of Flexible Electronics

Abst# 1137 Direct Copper Electroplating on Polyimide Film By Using Ni As Barrier and Conductive Interlayer by Po-Fan Chan, National Chung Hsing University; Shang-En Huang, National Chung Hsing University; Wei-Ping Dow, National Chung Hsing University

E02—Surfactant and Additive Effects on Thin Film Deposition, Dissolution, and Particle Growth

Abst# 1148 In Situ Scanning Tunneling Microscopy Imaging Self-Assembled Monolayers of Mercaptoacetic Acid and Cupric Ion on Au(111) Electrode by Shuehlin Yau, national central university

F02—Electrochemical Engineering General Session

Abst# 1201 Water Treatment By Adsorption with Electrochemical Regeneration by Edward Roberts, University of Calgary; Nigel Brown, Arvia Technology Ltd.; Syed Hussain, University of the Punjab, Lahore; Hussain Mohammad, University of Manchester, UK; Alastair Martin, University of Lancaster, UK

H03—Silicon Compatible Materials, Processes, and Technologies for Advanced Integrated Circuits and Emerging Applications 5

Abst# 1365 Fabricating Si Nanowires with Precisely Controlled Diameter and Spacing by Luping Li, University of Florida; Ying Fang, University of Florida; Cheng Xu, University of Florida; Yang Zhao, University of Florida; Kirk Ziegler, University of Florida

I02—Electrochemical Synthesis of Fuels 3

Abst# 1501 Electrodes for Protonic-Ceramic Membranes Used in Natural Gas-to-Chemicals Processing by Sandrine Ricote, Mechanical Eng. Dept., Colorado School Of Mines; Anthony Manerbino, CoorsTek Inc. Golden USA; Neal Sullivan, Mechanical Eng. Dept., Colorado School Of Mines; Grover Coors, CoorsTek Inc. Golden USA

I05—Solid-Gas Electrochemical Interfaces (SGEI 1)

Abst# 1609 (Invited) Properties of the Electrode-Ammonium Polyphosphate-Composite Interface at Temperatures up to 250°C by Berthold Reeb, ZAE Bayern; Ulrich Stimming, ZAE Bayern; Ulrich Stimming, Newcastle University

L04—Electrocatalysis 7

Abst# 1831 Morphology Controlled Synthesis of Durable TiO_2 Support for Nano-Pt Catalyst for Oxygen Reduction Reaction by Md. Aman Uddin, University of Connecticut; Md. Aman Uddin, Center for Clean Energy Engineering; Selvarani Ganesan, University of Connecticut; Selvarani Ganesan, Center for Clean Energy Engineering; Stephen

Stagon, University of North Florida; Ugur Pasaogullari, Department of Mechanical Engineering; Ugur Pasaogullari, University of Connecticut

L06—Electrochromic and Chromogenic Materials

Abst# 1901 Thermochromic Smart Windows for Energy Saving and Comfort in Buildings and Vehicles by Ping Jin, Shanghai Institute of Ceramics

Tuesday, May 26, 2015

A01—Joint General Session: Batteries and Energy Storage -and- Fuel Cells, Electrolytes, and Energy Conversion

Abst# 59 Rational Design of Nanocatalysts for Fuel Cell Reactions by Shaojun Guo, Los Alamos National Lab

Abst# 71 Effect of Lithium Bis(oxalato) Borate (LiBOB) As an Additive in Electrolyte for Enhanced Cycling Stability of Li-Rich $Li_{1.2}Ni_{0.16}Mn_{0.56}Co_{0.08}O_2$ cathodes by Doron Aurbach, Bar-Ilan University; Prasant Nayak, Bar-Ilan University, Ramat Gan, Israel 52900; Judith Grinblat, Bar-Ilan University, Ramat Gan, Israel 52900; Mikhael Levi, Bar-Ilan University

Abst# 78 A Novel Model of Water Hydration in PEM Fuel Cell in Dynamic Operations by Vincenzo Liso, Aalborg University; Mads Pagh Nielsen, Aalborg University

Abst# 92 Controlling Polysulfide Shuttling in Lithium-Sulfur Batteries by Manan Pathak, University of Washington Seattle; Bharatkumar Suthar, Washington University in St.Louis, Saint Louis, MO, 63130; Venkat Subramanian, University of Washington, Seattle

A02—Lithium-Ion Batteries and Beyond

Abst# 313 Investigations of Lithium-Sulfur Batteries at Low and High Temperatures by Natalia Cañas, German Aerospace Center (DLR); Sijie Zhao, German Aerospace Center (DLR); Norbert Wagner, German Aerospace Center DLR; Kaspar Friedrich, University of Stuttgart; Kaspar Friedrich, German Aerospace Center (DLR)

Abst# 332 Organosilicon-Based Electrolytes with Superior Thermal and Electrochemical Stability to Enable High Energy Lithium Ion Batteries by Monica Usrey, Silatronix; Adrian Pena Hueso, Silatronix; Michael Pollina, Silatronix; Peng Du, Silatronix; Liu Zhou, Silatronix; Tobias Johnson, Silatronix; Robert Hamers, Silatronix; Robert Hamers, University of Wisconsin-Madison; Robert West, University of Wisconsin-Madison; Robert West, Silatronix

B06—Graphene and Beyond: 2D Materials

Abst# 861 *1/F* Noise in MoS_2 Field Effect Transistors with Channel Length Variation by Suprem Das, Purdue University; Jiseok Kwon, Purdue University; Jonathan Claussen, Iowa State University; Shan Hu, Mechanical Engineering Department Iowa State University; David Janes, Purdue University

B08—Porphyrins, Phthalocyanines, and Supramolecular Assemblies

Abst# 978 Synthesis and Unique Spectroscopic Properties of Main Group Element Phthalocyanine and Tetraazaporphyrin Complexes by Nagao Kobayashi, Tohoku University; Taniyuki Furuyama, Tohoku University; Koh Satoh, Tohoku Univeersity; Takuya Yoshida, Tohoku University; Tomofumi Kushiya, Tohoku University

E02—Surfactant and Additive Effects on Thin Film Deposition, Dissolution, and Particle Growth

Abst# 1164 Microvia Filling in an Acidic Copper Planting Bath with Insoluble Anodes by CHU-CHI LIU, National Chung Hsing University; Wei-Ping Dow, National Chung Hsing University

Abst# 1176 Effect of Plating Additives on Microstructure and Properties of Electrodeposited Ni-Fe Alloy Thin Film by Mao-Chun Hung, National Chung Hsing University; Wei-Ping Dow, National Chung Hsing University

Abst# 1178 Using Azo As a Conductive and Adhesive Liner for through Glass Vias Filling By Cu Electroplating by Un-An Li, National Chung Hsing University; Chia-Wen Cheng, National Chung Hsing University; Po-Fan Chan, National Chung Hsing University; Wei-Ping Dow, National Chung Hsing University

F02—Electrochemical Engineering General Session

Abst# 1217 Electrochemical Separation and Purification of Astatine for Radiopharmaceutical Application by Selvarani Ganesan, Center for Clean Energy Engineering; Selvarani Ganesan, University of Connecticut; Matthew O'Hara, Pacific Northwest National Laboratory

Abst# 1218 Structural and Optical Characterization of Electrodeposited Black Chrome-Graphite Encapsulated FeCo Nanoparticles Composite Solar Selective Coatings by S Harinipriya, SRM Research Institute; Belal Usmani, IIT Jodhpur

F04—High Rate Metal Dissolution Processes 2

Abst# 1243 The Importance of Surface OXIDE FILMS in Metal Dissolution Processes - a 20-Year Update by Barry MacDougall, Department of Chemistry, University of Ottawa

Abst# 1246 Achieving Surface Finish Requirements on DMLS Parts with Precision Electrochemical Machining by Donald Risko, dgr Consulting LLC

G02—Processes at the Semiconductor Solution Interface 6

Abst# 1300 (Invited) Fabrication and Characterization of Silicon Microwire Anodes by Electrochemical Etching Techniques by Sandra Nöhren, University of Kiel, Institute for Materials Science; Enrique Quiroga-González, Institute for Physics, BUAP; Jürgen Carstensen, Faculty of Engineering, University of Kiel; Helmut Föll, Institute for Materials Science, University of Kiel

I03—Materials for Low-Temperature Electrochemical Systems 2

Abst# 1545 Analytical Modeling and Experimental Study of Thermal Conductivity of Catalyst Layer of Polymer Electrolyte Membrane (PEM) Fuel Cells by Mohammad Ahadi, Simon Fraser University; Mehdi Andisheh-Tadbir, Simon Fraser University; Mickey Tam, Automotive Fuel Cell Cooperation Corp.; Jürgen Stumper, Automotive Fuel Cell Cooperation Corp.; Majid Bahrami, Simon Fraser University

L01—Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry General Session

Abst# 1710 Electrochemical Kinetic Study on Various Immobilized Yeasts for Glucose Biofuel Cell Applications by Yang Bae Jeon, Dept. of Syst. Eng., University of Arkansas at Little Rock; Fusheng Tang, Dept. of Biology, University of Arkansas at Little Rock; Jin Wook Lee, Dept. of Syst. Eng., University of Arkansas at Little Rock

Abst# 1715 Electrolytic and Electroless Fabrication of Al-Sc Alloys in KF-Naf-AlF_3 Electrolytes by Olga Tkacheva, Institute of High Temperature Electrochemistry UB RAS; Andrey Suzdaltsev, Institute of High Temperature Electrochemistry UB RAS; Andrey Nikolaev, Institute of High Temperature Electrochemistry UB RAS; Yurii Zaikov, Institute of High Temperature Electrochemistry UB RAS; Yuriy Shtefanyuk, UC RUSAL; Vitaliy Pingin, RUSAL's Engineering and Technology Centre; Dmitriy Vinogradov, RUSAL's Engineering and Technology Centre

Abst# 1719 Order and Epitaxy during Electrochemical Layer By Layer Growth of Semiconductor Thin Films by Francesco Carlà, European Synchrotron Radiation Facility (ESRF); Roberto Felici, European Synchrotron Radiation Facility (ESRF); Andrea Magrini, Dipartimento di Chimica, UNIFI

Abst# 1724 Monitoring Mechanical Modulation of Reactivity in Electrocatalysis by Qibo Deng, Technische Universität Hamburg-Harburg; Joerg Weissmueller, Helmholtz-Zentrum Geesthacht; Joerg Weissmueller, Technische Universität Hamburg-Harburg

L03—Computational Electrochemistry

Abst# 1782 Formic Acid Electrochemical Oxidation on Au_{25} and $Pt@Au_{24}$ Nanocatalysts: A DFT Approach by Andre Clayborne, University of Jyväskylä; Wei Chen, Chinese Academy of Sciences

M01—Nano/Biosensors and Actuators

Abst# 2062 Aptamer-Based Electrochemical Biosensors for Marine Toxins by Shimaa Eissa, Institut National de la Recherche Scientifique–EMT; Mohamed Siaj, Université du Quebec à Montreal; Mohammed Zourob, Cranfield University

Abst# 2064 Fabrication of Electrochemical Biosensor for Cholesterol Using CNT-Gold Nanohybrid Buckypaper by Jhunu Chatterjee, Florida State University; Hunter Biggs, Florida State University

M04—Sensors, Actuators, and Microsystems General Session (Chemical and Biological Sensors)

Abst# 2170 Si Doped Metastable Epsilon-WO_3 Nano-Particle Film for Human Breath Acetone Sensing by Rishabh Jain, University of Connecticut; Rishabh Jain, Center for Clean Energy Engineering; Radenka Maric, University of Connecticut; Radenka Maric, Center for Clean Energy Engineering

Z01—General Student Poster Session

Abst# 2186 A Graphene-Zinc Nanorods Nano-Composite Film Sensor for Sensitive Determination of Tizanidine in Solubilized System by Rajeev Jain, Jiwaji University,Gwalior,India; Ankita Sinha, Jiwaji University,Gwalior,India

Abst# 2195 A Novel Real-Time, Mediator-Free, Non-Enzymatic Electrochemical Biosensor for Glutamate Detection by Yu-Ping Yang, University of Miami; Anita Manfredi, University of Parma; Anita Manfredi, University of Miami; Sylvia Daunert, University of Miami

Abst# 2225 Microfluidics with Alternating Current-Redox Magnetohydrodynamics at Modified Electrodes for Cell Identification by Adair Claycomb, University of Arkansas; Joshua Hutcheson, University of Arkansas; Foysal Khan, University of Arkansas; Timothy Muldoon, University of Arkansas; Ingrid Fritsch, University of Arkansas

Wednesday, May 27, 2015

A01—Joint General Session: Batteries and Energy Storage -and- Fuel Cells, Electrolytes, and Energy Conversion

Abst# 103 Electrical and Optical Properties of Lithium Phosphorous Oxynitride (LiPON)

Electrolyte Thin Films with High Nitrogen Content Prepared By RF Sputtering by Yu Su, 1st Physics Institute, Justus-Liebig-University; Jane Falgenhauer, Institute of Applied Physics, Justus-Liebig-University; Christian Lupo, Institute of Applied Physics, Justus-Liebig-University; Bruno Meyer, 1st Physics Institute, Justus-Liebig-University; Derck Schlettwein, Institute of Applied Physics, Justus-Liebig-University; Angelika Polity, 1st Physics Institute, Justus-Liebig-University; Jürgen Janek, Justus-Liebig-Universität Gießen, Gießen, Germany

Abst# 107 Dual-Oxide Nanostructures Electrodes for High Energy Density Asymmetric Supercapacitors by Nagaraju D H, King Abdullah University of Science & Technology (KAUST); Pierre Beaujuge, KAUST; Husam Alshareef, KAUST

Abst# 120 X-Ray Micro-Tomography As a Diagnostic Tool for the Electrode Degradation in Vanadium Redox Flow Batteries by Panagiotis Trogadas, University College London; Oluwadamilola Taiwo, University College London; Bernhard Tjaden, University College London; Tobias Neville, University College London; Sukhwan Yun, Illinois Institute of Technology; Javier Parrondo, Illinois Institute of Technology; Vijay Ramani, Illinois Institute of Technology; Marc Coppens, University College London; Dan Brett, University College London; Paul Shearing, University College London

Abst# 124 A Novel Flow Battery Using Quinoxaline Derivatives As Redox Couple by Xue Li, Tsinghua University; Yang Zhao, Tsinghua University; Jianxin Pan, Tsinghua University; Xiaofeng Xie, Tsinghua University; Vijay Ramani, Illinois Institute of Technology

Abst# 132 Model-Assisted 4-Electrode Cell Design for Li-Based Electrolyte Characterization by Mohammad Farkhondeh, University of Waterloo; Mark Pritzker, University of Waterloo; Michael Fowler, University of Waterloo; Charles Delacourt, Université de Picardie Jules Verne

Abst# 140 Effect of Additives Reducing Solubility of ZnO on the Decomposition Kinetics of a Supersaturated Zincate Solution by Ladislav Chladil, Centre for Research and Utilization of Renewable Energy; Ladislav Chladil, CEITEC - Central European Institute of Technology BUT; Petr Vanýsek, CEITEC - Central European Institute of Technology; Josef Máca, Brno University of Technology; Ondrej Cech, CEITEC - Central European Institute of Technology BUT

Abst# 148 Chemivoltaic Effects on Semiconductors for Direct Gas Fuel Energy to Electricity Conversion by Alexander Kabansky, Lam Research Corp.; Vladislav Styrov, Berdyansk State Pedagogical University; Vladislav Styrov, Institute of Nanotechnologies and Physical Engineering; Sergey Simchenko, Berdyansk State Pedagogical University; Sergey Simchenko, Institute of Nanotechnologies and Physical Engineering

Abst# 156 Capacitive Performance of Mwcnts Decorated with Manganese Oxides and Silver Particles As Electrode in Neutral Electrolytes by Qin Yang, The Hong Kong Polytechnic University; Kam-Chuen Yung, Hong Kong Polytechnic University

A02—Lithium-Ion Batteries and Beyond

Abst# 436 TiO_2 Nanotubes/Ionic Liquid Electrolyte System Enhances Li-Ion Battery Performance by Peter Chu, National Central University, Department of Chemistry; Jhen-Bin Tuan, National Central University, Department of Chemistry

Abst# 456 Improved Electrochemical Performances and Thermal Stability of $LiNi_{0.6}Co_{0.2}Mn_{0.2}$ by Li_3PO_4 coating by Suk Woo Lee, Yonsei univ.; Myeongseong Kim, Yonsei Univ.; Kwang-Bum Kim, Yonsei univ.

Abst# 476 *In Situ* Fabrication of 3-Dimentional $Li_4Ti_5O_{12}$/Reduced Graphene Oxide Microspheres with High Tap Density for High-Rate Lithium Ion Batteries by Myeongseong Kim, Yonsei Univ.; Suk Woo Lee, Yonsei univ.; Kwang-Bum Kim, Yonsei univ.

Abst# 477 High Density Sodium and Lithium Ion Battery Anodes from Banana Peels by David Mitlin, Clarkson University

Abst# 488 Novel Method for Synthesis of High Nickel Cobalt Aluminum Hydroxide By Engineered Two Step Co-Precipitation Method by Kitae Kim, Samsung Fine Chemicals; Minah Cha, Samsung Fine Chemicals; Jangsuk Hyun, Samsung Fine Chemicals; Wooyoung Yang, Samsung Fine Chemicals; Tae-Hwan Yu, Samsung Fine Chemicals; Jeong-Ju Cho, Samsung Fine Chemicals

Abst# 495 Direct Dry Synthesis of $LiNi_{0.8}Co_{0.2}O_2$ Thin Film for Lithium Ion Battery Cathodes by Yang Wang, University of Connecticut; Radenka Maric, University of Connecticut

Abst# 526 Mesoporus Silicon through Magnesium Reduction of Polymer Templated Silica for High Power Li-Ion Batteries by John Cook, UCLA; Sarah Tolbert, University of California - Los Angeles

Abst# 530 New Anti-Fluorite Transition Metal Nitrides As High Capacity Li-Ion Intercalation Anodes by Ryan Bayliss, University of Illinois at Chicago; Jordi Cabana, NECCES at University of Illinois at Chicago

Abst# 583 Monoclinic TiO_2 As Active Anode Material for Li-Ion Batteries by Ondrej Cech, Centre for Research and Utilization of Renewable Energy; Ondrej Cech, CEITEC - Central European Institute of Technology BUT; Ladislav Chladil, CEITEC - Central European Institute of Technology BUT; Tomáš Kazda, Centre for Research and Utilization of Renewable Energy; Vít Kašpárek, Brno University of Technology;

Pavel Cudek, Brno University of Technology; Petr Vanýsek, CEITEC - Central European Institute of Technology

Abst# 595 A Study into the Significant Improvement in Performance of Silicon Nanowire Electrodes through the Use of Electrolyte Additives by Tadhg Kennedy, MSSI and CES department, University of Limerick, Ireland; Kevin Ryan, MSSI and CES Department, University of Limerick, Ireland

B06—Graphene and Beyond: 2D Materials

Abst# 904 Enhancing the Interfacial Bonding Strength of Carbon/Epoxy Composites Using Silane-Functionalized Graphene Oxides by Soo Young Kim, Chung-Ang University; Chang Yeong Lee, Chung-Ang University; Ji-Hun Bae, Chung-Ang University; Tae-Yoon Kim, Korea Marine Equipment Research Institute; Seung-Hwan Chang, Chung-Ang University

B07—Inorganic/Organic Nanohybrids for Energy Conversion

Abst# 936 Synthesis and Characterization of CdSe Quantum Dots for Photovoltaic Application by Mallika Dasari, southern Illinois University; Punit Kohli, Southern Illinois Univeristy

B08—Porphyrins, Phthalocyanines, and Supramolecular Assemblies

Abst# 1029 Nanoscale Assembly & Chemical Modification of Carbon Nanotubes & Graphene by Sang Ouk Kim, KAIST

C01—Corrosion General Session

Abst# 1057 Lab-Scale Studies on the Activation Energy Regarding the Surface Alteration of Super-Heater Materials in Contact with KCl at Elevated Temperatures by Jingxin Sui, Åbo Akademi University; Juho Lehmusto, Åbo Akademi University; Mikael Bergelin, Åbo Akademi University; Mikko Hupa, Åbo Akademi University

Abst# 1074 Copper Nanoparticles Effect on the Corrosion Behavior of Different Types of Nickel-Based Super Alloys by Aboubakr Abdullah, Center for Advanced Materials, Qatar University; Adel Mohamed, Center for Advanced Materials, Qatar University; Mostafa Sliem, Center for Advanced Materials, Qatar University, Qatar

E02—Surfactant and Additive Effects on Thin Film Deposition, Dissolution, and Particle Growth

Abst# 1189 Prospectof the Pt/C Catalyst for Fuel Cells Prepared By a Nano Particles Formation Pulse Arc Plasma Source by Yoshiaki Agawa, APD system business promotion dept.; Yoshiaki Agawa, ULVAC-RIKO,Inc.; Satoshi Satoshi, ULVAC-RIKO,Inc.; Hiroyuki Tanaka, ULVAC-RIKO,Inc.; Shigemitsu Torisu, ULVAC-RIKO,Inc.; Akihiro

Tsujimoto, ULVAC-RIKO,Inc.; Narishi Gonohe, ULVAC-RIKO,Inc.

G01—Organic Semiconductor Materials, Devices, and Processing 5

Abst# 1286 Synthesis, Characterization, Electrochemical and Optoelectronic Properties and LED Device Fabrication of Low Band-Gap Donor-Acceptor Organic Semiconducting Small Molecules by Ragavachari Dhamodharan, IIT Madras; Elumalai Ramachandran, IIT Madras

I03—Materials for Low-Temperature Electrochemical Systems 2

Abst# 1564 Noble Metal Aerogel Design for Bio-/Fuel Cell Applications by Dan Wen, TU Dresden; Physical Chemistry; Chengzhou Zhu, The School of Mechanical and Materials Engineering, WSU; Alexander Eychmüller, Chair of Physical Chemistry, TU Dresden

L01—Physical and Analytical Electrochemistry, Electrocatalysis, and Photoelectrochemistry General Session

Abst# 1754 Physical-Chemical Properties of the Naf-AlF_3-Sc_2O_3-Al_2O_3 Molten System by Olga Tkacheva, Institute of High Temperature Electrochemistry UB RAS; Alexander Kataev, Institute of High Temperature Electrochemistry UB RAS; Alexander Redkin, Institute of High Temperature Electrochemistry UB RAS; Yurii Zaikov, Institute of High Temperature Electrochemistry UB RAS

Abst# 1758 NaCl Augmented Phase Transformation in Interfacial Water Under Quasistatic-Loading Conditions by Shah Khan, University of Peshawar, Peshawar, Pakistan; Peter Hoffmann, Wayne State University, Detroit, USA.

L04—Electrocatalysis 7

Abst# 1863 Recent Progress in New Nanocatalysts for Oxygen Reduction Reaction by Shaojun Guo, Los Alamos National Lab

L09—Oxygen or Hydrogen Evolution Catalysts for Water Electrolysis

Abst# 1960 Nanoengineering of MoS_2 Electrocatalysts for Efficient Hydrogen Evolution Reactions by Qingsheng Gao, Jinan University, Guangzhou, China; Ning Liu, Jinan University

L10—Photocatalysts, Photoelectrochemical Cells and Solar Fuels 5

Abst# 2023 Electrophoretic Deposition of $NiCo_2S_4$ Thin Film As a Catalytic Material for Dye-Sensitized Solar Cells by Shu-Wei Chou, Department of Chemical Engineering, Tatung University; Jeng-Yu Lin, Department of Chemical Engineering, Tatung

University

Abst# 2034 Facile Synthesis of Ultrafine Nanoparticles of Iron Based Oxides and Their Application in Solar Cells by Bashir Ahmmad, CREST, JST; Bashir Ahmmad, Yamagata University,; Shogo Hayasaka, Yamagata University; Kensaku Kanomata, Yamagata University; M. a. Basith, Bangladesh University of Engineering and Technology; Shigeru Kubota, CREST, JST; Shigeru Kubota, Yamagata University; Fumihiko Hirose, CREST, JST; Fumihiko Hirose, Yamagata University

L11—Structure and Relaxations in Soft Ion-Conducting Materials

Abst# 2044 Decoupling Ion and Proton Transport from Structural Relaxation in Polymers and Ionic Liquids by Alexei Sokolov, University of Tennessee

Abst# 2053 Charge Transport and Structural Dynamics in Polymerized Ionic Liquids by Joshua Sangoro, University of Tennessee, Knoxville; Stephen Paddison, University of Tennessee, Knoxville

M02—Nano-Micro Sensors and Systems in Healthcare and Environmental Monitoring

Abst# 2133 Thiol-Sensitive Electrochemical Sensors for Advance Detection of Neurotoxins in Water and Biomass by Anna Pilip, SRCES RAS; Arcadij Eremenko, Emanuel Institute of Biochemical Physics RAS; Ilijya Kurochkin, Department of Chemistry, Moscow State University; Iana Russkikh, SRCES RAS; Taisiya Prokopkina, Department of Chemistry, Moscow State University

Abst# 2135 Titanium Dioxide and Tin Oxide Composite for so_2 Gas Sensors by Suresh Mulmi, UNIVERSITY OF CALGARY; Venkataraman Thangadurai, University of Calgary

M04—Sensors, Actuators, and Microsystems General Session (Chemical and Biological Sensors)

Abst# 2180 Citrus Limon Peel As a Component of Modified Carbon Paste Electrode for Voltammetric Determination of Cd(II) by Deepak Rajawat, Department of Chemistry, IIS University, Jaipur; Soami Satsangee, USIC, Dayalbagh Educational Institute, Agra

Z02—Nanotechnology General Session

Abst# 2256 Pgs Synthesis with the Sulfated Titania Catalyst for the Esterificaiton by Sung Nien Hsu, National Tsing Hua University; Kan-Sen Chou, Department of Chemical Engineering, NTHU

Abst# 2268 Nanoscale Investigation of Anodization Process of Titanium by Kun He, Shandong University; Kun He, Michigan Technological University; Yu-Peng Lu, Shandong University; Tolou Tolou Shokuhfar, Michigan Technological University; Reza

Thursday, May 28, 2015

A01—Joint General Session: Batteries and Energy Storage -and- Fuel Cells, Electrolytes, and Energy Conversion

Abst# 198 A Systematic Study on Sodium Doped Strontium Silicate for SOFC Application by Youngseok Jee, University of South Carolina; Xiaolei Xiong, University of South Carolina; Jingjing Tong, China University of Mining & Technology, Beijing; Fengzhan Si, University of South Carolina; Jie Wang, University of South Carolina; Jie Fang, University of South Carolina; Kevin Huang, University of South Carolina

Abst# 207 Effect of Anodic Deposition Parameters on Electrochemical Behavior and Microstructure of Mn-Ni Oxide As a Pseudocapacitive Electrode by Mohammad Tahmasebi, Politecnico di Milano; Mohammad Tahmasebi, Isfahan University of Technology; Antonello Vicenzo, Politecnico di Milano; Massimiliano Bestetti, Politecnico di Milano; Mohammad Ali Golozar, Isfahan University of Technology; Keyvan Raeissi, Isfahan University of Technology

Abst# 222 The Influence of Water in Montmorillonite Clay on the Performance As Electrode Material for Li-Ion Battery/Capacitor by Chunhui Chen, Florida International University; Gautam Shah, Florida International University; Chunlei Wang, Florida International University

A02—Lithium-Ion Batteries and Beyond

Abst# 616 MoO_2/Mo_2C hybrid Nanowires As Anode Materials for High Performance Lithium Ion Batteries by Lichun Yang, South China University of Technology, Guangzhou, China; Wei Sun, South China University of Technology, Guangzhou, China; Zhiwei Zhong, Jinan University, Guangzhou, China; Yukun Wang, South China University of Technology, Guangzhou, China; Qingsheng Gao, Jinan University, Guangzhou, China; Min Zhu, South China University of Technology, Guangzhou, China

Abst# 618 Silicides and Novel Alloys with Open Tetrahedral Framework Structures Hosting Lithium Atoms by Thomas Fässler, Technische Universität München

Abst# 622 Silicon-Germanium Heterostructure Nanowires As High Capacity Lithium-Ion Battery Anodes - an Electrochemical and Structural Investigation by Tadhg Kennedy, MSSI and CES department, University of Limerick, Ireland; Kevin Ryan, MSSI and CES Department, University of Limerick, Ireland

Abst# 623 Rational Design of Metal Oxide-Carbon Yolk-Shell Nanostructures for Lithium Ion Batteries by Shaojun Guo, Los Alamos National Lab

Abst# 624 From Quasi-2D TiO_2(B) and Graphene Nanosheets to 3D Hierarchical Nanostructured Electrodes for Li-Ion Batteries by Guofeng Ren, Texas Tech University, Electrical & Computer Engineering; Zhaoyang Fan, Texas Tech University, Electrical & Computer Engineering

Abst# 636 A Novel Li-Battery Cathode Material: Synthesis and Characterization of $Li(Mn_{1-x}Co_x)BO_3$ by Barbara Le Roux, CRISMAT, Caen, France; Barbara Le Roux, CEA, LITEN, F-38054 Grenoble, France; Carole Bourbon, CEA, LITEN, F-38054 Grenoble, France; Jean François Colin, CEA, LITEN, F-38054 Grenoble, France; Oleg Lebedev, CRISMAT, Caen, France; Valérie Pralong, CRISMAT, Caen, France

B01—Carbon Nanostructures for Energy Conversion

Abst# 740 Graphene for Energy: Which Promising Applications and How? by Etienne Quesnel, CEA-Liten

B05—Fullerenes - Chemical Functionalization, Electron Transfer, and Theory: In Honor of Professor Shunichi Fukuzumi

Abst# 843 Carboxylate Fullerene Derivatives in Redox-Reversible Bimetallic Assemblies by Catalina Suarez, University of Texas at El Paso; Danisha Rivera-Nazario, University of Texas at El Paso; Luis Echegoyen, University of Texas at El Paso

Abst# 847 Synthesis and Characterization of Bis-Triruthenium Cluster Derivatives of an All Equatorial [60]Fullerene Tetramalonate by Chia-Hsiang Chen, The University of Texas at El Paso; Amineh Aghabali, University of California, Davis; Marilyn Olmstead, University of Califronia, Davis; Alan Balch, University of California, Davis; Luis Echegoyen, The University of Texas at El Paso

B08—Porphyrins, Phthalocyanines, and Supramolecular Assemblies

Abst# 1042 Origin of Reactivity Differences Between Heme and Nonheme Iron(III)-Hydroperoxo Complexes by Sam de Visser, University of Manchester