

ISE Satellite Student Regional Symposium on Electrochemistry Monday 25 th November 2013	
8:00 – 8:30	Registration for the ISE Satellite Student Regional Symposium on Electrochemistry and the 19 th Australia/New Zealand Electrochemistry Symposium (<i>Location: Foyer, Ian Wark Theatre Reception</i>)
8:30 – 8:40	Welcome address – Prof. Alan Bond on behalf of the organizing committee and Prof. Steven Langford on behalf of School of Chemistry/Monash University
8:40 – 8:45	Opening Remark for the ISE sponsored student conference – Mr. Cameron Bentley
Plenary lecture – Chair: Mr. Cameron Bentley	
8:45 – 9:15	Prof. Julie Macpherson (Warwick University), When is it is best to use conducting diamonds in electrochemical research
Session 1 – Chair: Ms. Kiran Bano	
9:15 – 9:30	Mr. Cameron Bentley (Monash University / CSIRO), Applications of semiintegral and convolution voltammetry in analytical electrochemistry
9:30 – 9:45	Ms. Yafei Zhang (Deakin University), Low-toxic ionic liquid as a means to control the corrosion of magnesium alloys in simulated body fluids
9:45 – 10:00	Mr. Asim Khan (UNSW), The Oxygen Reduction Reaction in Room Temperature Protic Ionic Liquids
10:00 – 10:15	Ms. Junqiao Lee (Curtin University), Polishing of platinum screen printed electrodes improves its performance for oxygen sensing in room-temperature ionic liquids.
10:15 – 10:30	Mr. David Bower (Latrobe University), Co-reactant electrogenerated chemiluminescence (ECL) from carbon dioxide in ionic liquids
10:30 – 10:45	Mr. Ciaran McDonnell-Worth (Monash University), Protic Ionic Liquids for Electrochemical Hydrogen Peroxide Production
10:45 – 11:00	<i>Coffee / Morning Tea (Location: Canteen / Tea Room)</i>
Session 2 – Chair: Mr. Bradley Stringer	
11:00 – 11:15	Ms. Yuping Liu (Monash University), Voltammetric Determination of the Reversible Potentials for $[\{Ru_4O_4(OH)_2(H_2O)_4\}(\gamma-SiW_{10}O_{36})_2]^{10-}$ over the pH range of 2 to 12: Electrolyte Dependence and Implications for Water Oxidation Catalysis
11:15 – 11:30	Ms. Madeleine Dupont (University of Newcastle), Electrodeposited Thin Film Carbon Electrodes For Use In Electrochemical Capacitors
11:30 – 11:45	Mr. Xunyu Lu (UNSW), High Performance Co-Based Composite Catalysts for Sustained Electrochemical Oxygen Evolution
11:45 – 12:00	Mr. Kalib Bell (University of Canterbury), Increased Capacitance of Electrodeposited MnO ₂ After Modification With Diazonium Salts
12:00 – 12:15	Mr. Erwin Rodriguez (University of Melbourne / CSIRO), Properties of Monodisperse Mesoporous Anatase Beads on Lithium Ion Batteries
12:15 – 12:30	Mr. Wesley Dose (University of Newcastle), Optimizing the Thermal Synthesis of Lithiated Manganese Dioxide, Li _{0.33} MnO ₂ , for Li-ion Batteries
Bond Medallist Lecture – Chair: Prof. Alan Bond	
12:30 – 1:00	Dr. Debbie Silvester-Dean (Curtin University), Electrochemical Detection of Gases on Screen-Printed Electrodes in Ionic Liquids: Advantages and Challenges
1:00 – 2:00	<i>Lunch and poster session (Location: Canteen / Tea Room)</i>

Plenary lecture – Chair: Mr. Cameron Bentley	
2:00 – 2:30	Prof. David Williams (Auckland University), From sensors to systems to networks for air quality measurement: a tale of science and commercialisation
Session 3 – Chair: Mr. Muhammad Abdelhamid	
2:30 – 2:45	Ms. Kiran Bano (Monash University), Application of a novel internal reference concept for the reliable determination of the kinetics of fast electron transfer processes using Fourier transformed large amplitude ac voltammetry
2:45 – 3:00	Mr. Moinul Choudhgury (UNSW), Electroactive Monolayers on n-Type Silicon
3:00 – 3:15	Mr. Bradley Stringer (Latrobe University), Photophysical and Electrochemical properties of Iridium N-Heterocyclic Carbene complexes
3:15 – 3:30	Mr. Thomas Somerville (Macquarie University), Dependence of Electrochemical Characteristics of Graphene Modified Electrodes on Oxygen-containing Groups Arising from the Synthetic Routes
3:30 – 3:45	Ms. Manika Mahajan (RMIT University), Fabrication of CuTCNQF ₄ /Au nanoparticle composites and their photocatalytic applications
3:45 – 4:00	<i>Coffee / Afternoon Tea (Location: Canteen / Tea Room)</i>
Session 4 – Chair: Ms. Jacqui Delaney	
4:00 – 4:15	Ms. Devi Liana (UNSW / CSIRO), Cysteine-Modified Sintered Gold Electrodes on Paper as a Low Cost Electrochemical Sensor
4:15 – 4:30	Mr. Muhammad Abdelhamid (RMIT / CSIRO), Electropolymerisation of polyaniline nanofibres and their decoration with metal nanoparticles for gas sensing
4:30 – 4:45	Ms. Eva Alvarez de Eulate (Curtin University), Electrochemical protein pre-concentration at the gelled liquid – liquid interface followed by mass spectrometry via electrostatic spray ionization
4:45 – 5:00	Mr. Shahid Hussain (Monash University), Noncovalent Functionalization of Multiwalled Carbon Nanotubes with Sulfite Oxidase for Amperometric Detection of Sulfite
5:00 – 5:15	Mr. Alireza Dibaji (Deakin University), A Biomimetic Sensor for the Detection of Metal Ions
5:15 – 5:30	Ms. Roya Tavallaie (UNSW), An Electrochemical Biosensor for Selective Detection of MicroRNA
Poster Session	
5:30 – 6:30	<i>Poster session, drinks and mixer (Location: Canteen / Tea Room)</i>
6:30 –	Symposium Dinner – Location: onsite at CSIRO

19th Australia/New Zealand Electrochemistry Symposium (19ANZES)Tuesday 26th November 2013**Plenary lecture – Chair: Dr. Jie Zhang**

8:45 – 9:15	Prof. David Williams (Auckland University), Synchrotron X-ray studies of the formation of protective scales of siderite on steel surfaces during corrosion in CO ₂ -saturated brine at elevated temperature
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Session 1 – Chair: Prof. Alan Bond

9:15 – 9:30	Prof. Alison Downard (University of Canterbury), Reduction of Diazonium Ions at Highly Ordered Pyrolytic Graphite: an Electrochemical and Scanning Probe Microscopy Investigation
9:30 – 9:45	Dr. Si-Xuan Guo (Monash University), Graphene supported molecular and nano-catalysts for Highly Efficient Electrocatalytic Water Oxidation
9:45 – 10:00	Dr. Janjira Panchompoo (UNSW), Carbon Black Nanoparticles: Surface Modification, Characterisation and Potential Applications
10:00 – 10:15	Prof. Jingquan Liu (Qingdao University), Electrochemical applications of π - π stacking modified graphene
10:15 – 10:30	Dr. Paula Brooksby (University of Canterbury), Unusual Electrochemistry from Ferrocene Terminated Monolayer Films on Glassy Carbon: Effects Originating from the Electrical Double Layer
10:30 – 10:45	<i>Coffee / Morning Tea (Location: Canteen / Tea Room)</i>

Session 2 – Chair: Prof. Doug Macfarlane

10:45 – 11:00	Dr. Shu-Feng Zhao (Monash University / CSIRO), Electrocarboxylation of acetophenone in ionic liquids
11:00 – 11:15	Dr. Leigh Aldous (UNSW), Correlating the electrochemical and thermal stability of ionic liquids in contact with (electro)catalytic substrates
11:15 – 11:30	A/Prof. Damien Arrigan (Curtin University), Electrochemistry at Water Ionic Liquid Interfaces: Proteins to Protons
11:30 – 11:45	Dr. Naoki Tachikawa (Monash University), Electrochemical properties and proton activities of protic ionic liquids
11:45 – 12:00	Dr. Chuan Zhao (UNSW), Robust and Versatile ‘Wall-less’ Microreactor Achieved by Microcontact Printing of Ionic Liquids

Session 3 – Chair: Dr. Conor Hogan

12:00 – 12:15	Dr. Shanqing Zhang (Griffith University), Mesoporous graphene nanocomposite: anchoring mechanisms and superior rate performance as anodes for lithium-ion batteries
12:15 – 12:30	Dr. Michael Mucalo (University of Waikato), A combined IR spectroelectrochemical and EXAFS/XANES study of the speciation from Ni electrodes anodically polarized in cyanate-, thiocyanate- and selenocyanate-containing solutions of dimethyl formamide (DMF) and dimethyl sulfoxide (DMSO)
12:30 – 12:45	Dr. Muhammad Alam (UNSW), Understanding the Complexities of Electrochemical Impedance Spectroscopy using In-Situ Synchrotron Radiation Grazing Incidence X-Ray Diffraction
12:45 – 1:00	Dr. Manzar Sohail (University of the Sunshine Coast), Transport and Accumulation of Redox Compounds at the Buried Interfaces of Plasticized Membrane Electrodes

1:00 – 2:00	<i>Lunch (Location: Canteen / Tea Room)</i>
Plenary lecture – Chair: Dr. Jie Zhang	
2:00 – 2:30	Prof. Julie Macpherson (Warwick University), The Importance of Electrode Design Architecture for the Use of Single Walled Carbon Nanotubes in Electrochemistry
Session 4 – Chair: Mr. Mike Horne	
2:30 – 2:45	Dr. Lathe Jones (RMIT University), Electrodeposition at Extreme Cathodic Overpotential.
2:45 – 3:00	Dr. Michael Breedon (CSIRO), In silico prediction of efficacy of small organic corrosion inhibitors
3:00 – 3:15	A/Prof. Mike Yongjun Tan (Deakin University), Electrochemical Heterogeneity and Localized Electrode Processes: An Overview
3:15 – 3:30	Dr. Andrew Pearson (RMIT University), Fabrication of metal nanoparticle modified semiconducting Cu-and AgTCNQ materials as effective substrates for the reduction of Cr(VI) ions using environmentally friendly thiosulphate ions at ambient temperature
Session 5 – Chair: Dr. Anthony O'Mullane	
3:30 – 3:45	Dr. Muhammad Shiddiky (University of Queensland), Molecular <i>Nanoshearing</i> : An Innovative Approach to Shear off Molecules with AC-Induced Nanoscopic Fluid Flow
3:45 – 4:00	Dr. Conor Hogan (Latrobe University), Sensing for Cents: Mobile Phone based Sensing at Close to Zero Cost
4:00 – 4:15	Dr. Da Li (Deakin University), Towards Electrochemical Detection of Single Molecules <i>via</i> Nanoparticle-Electrode Collisions
4:15 – 4:30	Dr. Alexandr Simonov (Monash University), Probing the kinetics of electron transfer in glucose oxidase immobilized on advanced carbon supports
4:30	Closing Remarks