

Programme

Day 1: Tues 3 April 2018

07:00 – 9:00	Registration opens
8:20 – 9:00	<p style="text-align: center;">Opening Ceremony</p> <p>Welcome address Prof Priscilla Baker - the Chairperson ElectrochemSA (5 min) Host Welcome address and introduction of the Vice Chancellor (UJ) by Prof Debra Meyer (Executive Dean Faculty of Science, UJ) – (10 min) Opening Addresses by the Prof. Tshilidzi Marwala (Vice Chancellor, University of Johannesburg) – (25 min)</p>
Chair	Prof Omotayo Arotiba (UJ)
9:00 -9:05	Introduction of Plenary
9:05-9:45	Plenary 1: Prof Omowunmi Sadik (State University of New York (SUNY) at Binghamton, USA)- <i>Electrodynamics of Microbial System for Sensing, Waste reduction and Energy generation</i>
9:45 -10:05	IO1: Prof Patrick Ndungu (UJ) - <i>Perspectives on Carbon Nanomaterials and their use in Energy Storage and Conversion</i>
10:05-10:25	O2: Magashwa Makhafola (Univ Limpopo) - <i>Fabrication of graphene oxide/metal organic framework nanocomposite with improved electrocatalytic efficiency for hydrogen evolution reaction</i>
10:25 – 10:45	Tea
Chair	Prof. Omotayo Arotiba (UJ)
10:50-11:20	Keynote 1: Prof Emmanuel Iwuoha (UWC) - <i>Ampero-Phenotype Sensing of Breast Cancer Drugs</i>
11:20 -11:40	O3: Tirivashe Elton Chiwunze (UKZN) - <i>A Sensitive Electrochemical Sensor Based On Poly-Cysteamine And Reduced Graphene Oxide Decorated With Gold Nanoparticles Composite For The Determination Of Amodiaquine.</i>
11:40-12:00	O4: Luthando Tshwenya (UJ) - <i>A novel cationic diode derived by hot-pressing a Fumasep ionomer film onto a polyethylene teraphthalate substrate with a microhole.</i>
12:00-12:20	O5: Ntsoaki Mphuthi (Mintek) - <i>Electrochemical characterization of copper sulfide nanoparticles synthesized at different temperatures.</i>
12:20-12:40	O6: Dr B Seteni (CSIR, Pretoria) - <i>Comparative study for $xLi_2MnO_3 \cdot (1 - x) LiMO_2$ synthesized in different pathways</i>
12:40-13:55	Lunch and visit to exhibitors
Chair	Prof. Patrick Ndungu (UJ)
14:00-14:30	Keynote 2: Prof Andre Crouch (WITS) - <i>Electrochemical and Electrodriven Methods for detection of Inorganic and Organometallic Mercury: Some perspectives</i>
14:30-14:50	IO7: Prof Mangaka Matoetoe (CPUT) - <i>Electrochemical investigation of cysteine gold nanorods interaction.</i>
14:50-15:10	IO8: Dr Omolola Fayemi (NWU) - <i>Electrocatalysis of Organochlorine Pesticides using antimony oxide nanoparticles based-SWCNT/PANI Nanocomposites.</i>
15:10-15:40	Keynote 3 Dr Fabiana Arduini (University of Rome, Tot Vergata Italy) - <i>Electrochemistry and paper towards a new route: electrochemical paper-based (bio)sensors.</i>
15:40-1600	Tea break
Chair	Prof. Philiswa Nomngongo (UJ)
16:00-1620	O9: Patrick V. Mwonga (WITS) - <i>Effects of Ion Implantation on Energy Storage Properties of Bulk Molybdenum Disulphide.</i>
16:20-16:40	O10: Ntuli Letta (CSIR, Pretoria) - <i>Printed paper-based electrochemical sensors for low-cost point-of-need applications.</i>
16:40-17:00	O11: Exhibitors short presentations
17:05-19:00	Drinks and poster session

Day 2: Wednesday 4 April 2018

Chair	Prof Priscilla Baker (UWC)
8:10-8:15	Introduction of plenary
8:15-8:55	Plenary 2: Prof Frank Marken (University of Bath, UK) - <i>Polymers of Intrinsic Microporosity in Electrochemistry.</i>
8:55-9:15	IO12: Dr Jessica Chamier (HySA, UCT) - <i>The oxygen reduction activity of C/Pt with graphitized carbon/IrO₂ oxygen evolution electrocatalysts.</i>
9:15 -9:35	O13: Barbara Sowa (UP) - <i>Electrochemical studies of Langmuir-Blodgett films of mercury dithizonate derivatives.</i>
9:35-9:55	O14: Dr. M.Z. Iqbal (NWU) - <i>Silver/nickel oxide (Ag/NiO) nanocomposites produced via a citrate sol-gel route as electrocatalyst for the oxygen evolution reaction (OER) in alkaline medium.</i>
9:55-10:15	O15: G Kabongo (WITS) - <i>Bimetallic Metal-organic frameworks/Reduced Graphene Oxide composite material as efficient electrode for high-voltage symmetric Supercapacitors.</i>
10:15-10:45	Tea break, Poster session continues
Chair	Dr Nobanathi Wendy Maxakato (UJ)
10:45-11:15	Keynote 4: Prof R Meijboom (UJ) - <i>Synergistic effects between support and catalyst: a kinetic investigation</i>
11:15 -11:35	O16: Funeka Nkosi (CSIR) - <i>Enhancing the Electrochemical Performance of P2-type Na_{0.67} [Mg_{0.28}Mn_{0.72}] O₂ Cathode for Sodium-ion Batteries using Microwave Irradiation.</i>
11:35-11:55	O17: Rasmita Barik (WITS) - <i>Metal-organic framework(MOF's) as efficient Sulphur host for Li-S batteries.</i>
11:55-12:45	ElectrochemSA Division meeting
12:45-13:30	Lunch
13:30 –	Excursion
19:00	Dinner and Awards

Day 3: Thursday 5 April 2018

Chair	Prof Emmanuel Iwuoha (UWC)
8:25-8:30	Introduction of plenary
8:30-9:10	Plenary 3: Prof Priscilla Baker (UWC) - <i>Nanostructured semi-conductive interfaces for real time analytical solutions.</i>
9:10-9:30	IO18: Prof. Omotayo Arotiba (UJ) - <i>Dendrimer based supramolecular architecture as immobilisation layers in electrochemical biosensor design.</i>
9:30 -9:50	O19: Mathabo Ramaqele (WITS)- <i>Assessment of the speciation and bioavailability of arsenic in acid mine drainage.</i>
9:50-10:10	O20: Nnaemeka Nnaji (RU) - <i>Benzothiazole derived phthalonitrile and phthalocyanine inhibitors of aluminium corrosion</i>
10:10-10:30	O21: Xolani Ngema (UWC) - <i>Poly(amine-amide)-AgNPs-CYP2E1 biosensor for the detection of anti-TB drugs in aqueous systems.</i>
10:30-10:50	Tea break
Chair	Prof Mangaka Matoetoe (CPUT)
10:50-11:20	Keynote 5: Prof Kenneth Ozoemena (Wits) - <i>Unravelling the effects of microwave irradiation on the performance of cathode materials for advanced batteries</i>
11:20-11:40	O22: Chima Njoku (NWU) - <i>A Facile Approach to the Synthesis of Sm_{0.8}Sr_{0.2}Fe_{0.8}Co_{0.2}O_{3-f} Perovskite for the Oxygen Evolution Reaction in Alkaline Media.</i>
11:40-12:00	O23: Ntuthuko Hongwa (UWC) - <i>Graphene-functionalised LiMn₂O₄ electrodes for high performance Li-ion capacitors</i>
12:00-12:20	O24: Clarissa Gray (UP) - <i>The electrochemical reduction of CO₂ to liquid fuels.</i>
12:20-12:40	O25: Dr X Fuku (CSIR) - <i>Performance analysis of Green synthesized vertically grown n-metal oxide@C as Pd electro-catalyst support material for ethanol oxidation.</i>
12:40-14:00	Lunch
Chair	Dr Omolola Fayemi (NWU)
14:00 – 14:30	O26: Mr AO Idris - <i>Label-free Immunosensor Based on Carbon-nanodots for Detection of Alpha-feto Protein – a Cancer Biomarker</i>
14:30-14:50	Keynote 6: Dr AS Adekunle (OAU, Nigeria) - <i>Electrochemical Properties of Graphene oxide doped Prussian blue (PB) and Fe₂O₃ nanoparticles: Nitrite as Analytical Probe</i>
14:50	Closing ceremony and networking – Dean/HOD, LOC Chairman

Poster Presentations (03 to 04 April 2018)

Poster No.	Delegate Name	Title
P1	Mzamo Shozi (UKZN)	Synthesis and Characterization of Supported Catalysts for the Electro-oxidation of Glycerol
P2	Eseoghene H. Umukoroa (UJ)	Fabrication of silver decorated MnO ₂ immobilised on an expanded graphite photoanode for enhanced photoelectrocatalytic degradation of sulfamethoxazole
P3	Chima Njoku (NWU)	Evaluation of novel nanophase Ce _{0.8} Sr _{0.2} Fe _{0.9} Ir _{0.1} O ₃₋₆ as cathode material for low temperature SOFC
P4	Aphiwe Mfuku (RU)	Carbon black nanomaterials in wastewater treatment: role of support in improving electrochemical performances and advanced oxidation processes
P5	De Wet Coertzen (NWU)	Vulcan carbon as support for Ni-based thin films for oxygen evolution in alkaline media
P6	Venkata Narayana Palakollu (UKZN)	A simple and one-step synthesis of Fe ₂ O ₃ /reduced graphene oxide nanocomposite for electrochemical sensitive determination of paracetamol
P7	Atal Anudeep Singh Gill (UKZN)	Electrochemical sensitive detection of uric acid using reduced graphene oxide/poly(phenol red) modified glassy carbon electrode
P8	Ludwe Sikeyi (UJ)	Electro-Catalytic Activity of Carbon Nanofibers Supported Palladium Nanocomposite as Electrodes in Direct Alcohol Fuel Cells
P9	Takunda Gwanzura (CPUT)	Electrochemical EGF biosensor based on antibody immobilised on gold, zeolitic imidazolate framework composite
P10	Ntsoaki Mphuthi (Mintek)	Electrochemical characterization of copper sulfide nanoparticles synthesized at different temperatures
P11	Natasha Ross (UWC)	Transition Metal Alloy-Modulated Lithium Manganese Oxide Nanosystem for Energy Storage and Conversion in Lithium-Ion Battery Cathodes
P12	Kgotla Masibi (NWU)	Electrochemical Detection of Lindane at Glassy Carbon Electrode modified with Antimony Oxide Nanoparticles, Polyaniline and functionalized Single-walled Carbon Nanotubes
P13	Shokoofeh Moayed (UP)	Electrochemical investigations of the films of Supramolecular Fullerene-Porphyrin Complexes
P14	Malitsatsi Mnguni (Wits)	Impact of Sample Preparation on the EIS of Pelletized Materials
P15	Kayode Adegoke (UP)	Electrochemical Reduction of Formic Acid at Indium Oxide Cathode
P16	Boitumelo Mogwase (NWU)	The Formation of Anodic Oxide Films on Pt in 0.5M H ₂ SO ₄
P17	Taraisi Velepini (UJ)	Electrochemical detection of Hg on a polypyrrole/carboxy methyl cellulose-ion imprinted glassy carbon electrode

P18	Abongile Nwabisa Jijana (Mintek)	The Detection of Arsenic Using L-Cysteine/Thiolated-Gold Based Nanoparticles Platted On Screen Printed Carbon Electrodes (SPCE) Interfaces
P19	Tarekegn Heliso Dolla (UJ)	Ternary mixed $Mn_xNi_{1-x}Co_2O_4$ oxides prepared by sol-gel method as an anode material for Li-ion battery
P20	Omolola Fayemi (NWU)	Interference free determination of catechol in presence of hydroquinone at pyrogallol film modified carbon paste electrode: A voltammetric study
P21	Olwethu Ngwanya (UWC)	Molecularly imprinted polymers for the detection of volatile organics associated with fuel combustion
P22	AL Farao (UWC)	Synthesis strategies towards the preparation of ligands for the detection of NO _x species
P23	Anne Lutgarde Djoumessi Yonkeu (UWC)	ORGANIC FIELD-EFFECT TRANSISTORS TRANSPORT PROPERTIES OF THIENOTHIADAZOLE/FLUORENE-BASED COPOLYMERS
P24	Miranda Mengwi Ndipingwi (UWC)	Crystal Chemistry and Lithium-ion Intercalation Properties of Lithium Manganese Silicate Cathode for Rechargeable Li-ion Batteries
P25	Ninon Etsassala (UWC)	In-vitro Anti-oxidant Activity of South African Salvia chamelaeagnea constituents
P26	Nomxolisi Dywili (UWC)	Supercapacitor characteristics of DBSA doped polyaniline-graphene oxide supported with Ag, Cu and Pt nanoparticles
P27	Naledi Raleie (UWC)	Improving power conversion efficiency in P3HT/nanoparticles based in photoelectrochemical cells
P28	Usisipho Feleni (UWC)	Nanocancersens: A Palladium Telluride Quantum Dot-Based Phenotype Biosensor
P29	Unathi Sidwaba (UWC)	Novel PProDOT-Aptaelectrode for Detecting TB Disease Biomarker
P30	Philemon Akanji (UJ)	Sodium dodecyl sulphate intercalated kaolin – carbon paste electrode in the electrochemical detection of Pb(II) in water
P31	Lebogang Makgae (UJ)	Electrode Material Selection Approach For Electrocoagulation Optimisation In Wastewater Treatment
P32	Omotayo Arotiba (UJ)	Carbon soot nanoparticle: preparation, characterisation and electrochemical applications
P33	Gbenga Peleyeju (UJ)	Electrocatalytic oxidation of Bisphenol A at a diamond nanocomposite electrode
P34	Talifhani Mushiana (UJ)	Development of an electrochemical aptasensor for selective and quantitative detection of arsenic on carbon-gold nano platform
P35	Aderemi Haruna (Wits)	One dimension-ordered spinel $LiMn_{1.5}Ni_{0.5}O_4$ for high-energy and high-power lithium-ion batteries
P36	Benjamin Orimolade (UJ)	Photoelectrochemical degradation of Acid Orange 7 dye using Exfoliated graphite-Bismuth vanadate composite as a photoanode