

Auditorium 1			Meeting Room 1.6			Meeting Room 1.4		
Time			Time			Time		
Begin	End		Begin	End		Begin	End	
07:30	08:30	Tea (Foyer Auditorium 1)	07:30	08:30	Tea (Foyer Auditorium 1)	07:30	08:30	Tea (Foyer Auditorium 1)
<b>Session 17: Energy</b>			<b>Session 18: Process Engineering and Fundamentals</b>			<b>Session 19: Environmental Engineering</b>		
08:30	08:50	Talk 17.1 Production of Piezoelectric Composite Nanofibres from Recycled Poly (ethylene terephthalate) (Rita Okpuwhara, Billanu Oboirin)	08:30	08:50	Talk 18.1 Solvent selection methods in aromatic extraction processes towards optimal and sustainable design choices (Nivaar Brijmohan, Kuvenshan Moodley, Caleb Narasigadu)	08:30	08:50	Talk 19.1 The Synthesis and Characterization of Magnesium-based Metal-organic-framework-74 Suitable for Post-Combustion Carbon Dioxide Capture (Major Mabuza, Glory Makuwa)
08:50	09:10	Talk 17.2 Understanding Fischer-Tropsch Synthesis in Micro Reactors – A Three-phase One-dimensional Microchannel FT reactor Model (Bolang Mamabolo, Saeideh Babae)	08:50	09:10	Talk 18.2 Measurement and modelling of hydrodynamics in a supercritical fractionation column (Neo Motang, Johannes Knoetze, Cara Schwarz)	08:50	09:10	Talk 19.2 Continuous Microbial Pb Removal by an Industrially Obtained Consortium Using an Upflow Anaerobic Sludge Blanket Reactor (Bayandza Manzini)
09:10	09:30	Talk 17.3 Investigation of Ag, Al, Au, and Cu dopants for enhanced efficiency of cobalt catalysts in NH <sub>3</sub> decomposition: A DFT study (Daniel Oduma, Nomcebo Motsa, Jannie Pretorius, Michael Daramola)	09:10	09:30	Talk 18.3 Stripping Hydrogen Sulphide from an Aqueous Solution of Sodium Hydrosulphide (David van Vuuren, Ryno Vermeulen)	09:10	09:30	Talk 19.3 A circular economy approach for the beneficiation of slag, waste foundry sand, and plastic waste (Tebogo Mashifana, Thandiwe Sithole)
09:30	09:50	Talk 17.4 Effects of Catalyst Pore Sizes on the ASF Product Distribution Model in Fischer Tropsch Synthesis (Nicholas Jim, Joshua Gorimbo, Linda Jewell)	09:30	09:50	Talk 18.4 Phase equilibrium studies for multicomponent mixtures (methane, propane, carbon dioxide, hydrogen sulfide, water, triethylene glycol and methanol) in the natural gas dehydration process (Paul Zwavanda, Paramespri Naidoo, Wayne M. Nelson, Kuvenshan Moodley)	09:30	09:50	Talk 19.4 Development of bagasse-based recycled polypropylene composites (Justice Ipoteng Mphanlele, Joseph Gbadeyan, Vincent Ojjo, Viren Chunilal, Annegret Stark)
09:50	10:10		09:50	10:10	Talk 18.5 Title TBA (Christiaan van der Vyver and Andre Burger)	09:50	10:10	Talk 19.5
10:10	10:15		10:10	10:15		10:10	10:15	
10:15	10:45	Tea (Foyer Auditorium 1)	10:15	10:45	Tea (Foyer Auditorium 1)	10:15	10:45	Tea (Foyer Auditorium 1)
<b>Session 20: Water</b>			<b>Session 21: Chemical &amp; Biochemical Production</b>			<b>Session 22: Environmental Engineering</b>		
10:45	11:10	Keynote 20.1 The V&A Waterfront Seawater Desalination Plant - Designed for Sustainability (Hendri Verster, Andre Theys)	10:45	11:10	Talk 21.1 Techno-economic analysis of furfural derivatives that can be produced in an existing furfural alcohol plant. (Taonga Kabwe, Jeanne Louw, Johann Gorgens)	10:45	11:10	Keynote 22.1 Bioremediation of Cr(VI) and Other Hexavalent Transitional Metals in Soil and Aquatic Environments: A Review (Evans Chirwa, Buyisile Kholisa, Mpuemelele Mathesena, Phalazane Mtimuny, Neetu Bansal, Putane Molokwane, Zainul Zakaria, Yi-Tin Wang)
11:10	11:30	Talk 20.2 Aquatic Toxicity and Human Health Risk Assessments of Heavy Metals from Pretoria Wastewater (Mpho Qhubu, Ndeke Musee, Michael Daramola, P. N Nomngongo)	11:10	11:30	Talk 21.2 Manganese oxide, silver nanoparticles and activated carbon supported reduced graphene oxide 3D solar interface absorber for desalination of seawater (Bontle Manoto, Fisseha Bezza, Evan Chirwa)	11:10	11:30	Talk 22.2 Degradation of Rhodamine B dye on BiO <sub>2</sub> /Bi <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> Heterostructure Photocatalyst under Visible Light Activation (Osemekhian Ogbeifun, Shepherd Tichapondwa, Evans Chirwa)
11:30	11:50	Talk 20.3 Influence of Carbon Sources and Biosurfactants on Selenite and Lead Bioremediation from Wastewater by Enterococcus sp. (Job Tendenedzai, Evans Chirwa, Hendrik Brink)	11:30	11:50	Talk 21.3 Development and scale up of alginate lyase production from native alginate degrading microbes (Matthew Noach, Neill Goosen, Robert Pott, Eugene Van Rensburg)	11:30	11:50	Talk 22.3 Implementation of human hair as a bio-adsorbent for gasoline spilled in sea water in mozambique (Jonas Valente Matsinhe, Luis Helder Mendes Lucas, Iara Vaz Lopes Menete, Estevão Alberto Junior Pondja, Acacio Jose Zimbico)
11:50	12:10	Talk 20.4 Effects of Nano- and Micro-Chemicals Used in Sanitisers and Disinfectants in the South African Market on the Freshwater Snail, Physa Acuta (Lenah Motang, Ndeke Musee, Michael Daramola)	11:50	12:10	Talk 21.4 Development of productivity to produce biochar from the biomass of marine algae and mushroom waste via pyrolysis (Emmanuel Zikhonjwa, David Lokhat)	11:50	12:10	Talk 22.4 The Use of Calcium Carbonate Recovered from the Acid Mine Drainage (AMD) of the Witwatersrand Eastern Basin in Preparation of Polypropylene Composites (Recardo Khumalo, Evans Chirwa)
12:15	13:30	Lunch (Collection - Foyer Auditorium 1)	12:15	13:30	Lunch (Collection - Foyer Auditorium 1)	12:15	13:30	Lunch (Collection - Foyer Auditorium 1)
<b>Session 23: Energy</b>			<b>Session 24: Chemical &amp; Biochemical Production</b>			<b>Session 25: Environmental Engineering</b>		
13:30	13:50	Word from Sponsor	13:30	13:50	Talk 24.1 Heterogeneous Hydrogenations in Flow – Case Studies and Scale-up Considerations (Mike Kenny, Martin Monedero, Joshua Trenchard, Sarah Cleary, Holly Reeve, Tara Lurshay, Sofia Kazantzi, Jack Allman, Xu Zhao)	13:30	13:50	Talk 25.1 Optimizing mixing-assisted oxidative desulfurization: application of sludge-derived ferrate(VI) to dibenzothiophene and pyrolysis oil (Micah Haboc, Nathaniel Dugos, Angelo Earvin Choi, Meng-Wei Wan)
13:50	14:10	Talk 23.1 SS-LNG Technology and its role in the Just energy transition. (Christel Bonnet & Paul Botha)	13:50	14:10	Talk 24.2 Design and optimization of separation process alternatives for butanediol dehydration for use as a bio-fuel (Shivan Mavatal, Kuvenshan Moodley)	13:50	14:10	Talk 25.2 Valorisation of Iron-rich Acid Mine Drainage Sludge for Reusability Potential to Extract Valuable Material: The Synthesis of Barium Hexaferrite (Manthabiseng Thamae, Saeideh Babae, Palesa Diale)
14:10	14:30	Talk 23.2 Development of highly durable PEM fuel cell ORR catalysts (Thelma Ngwenya, Katlego Tshehla, Nkateko Mkhabela)	14:10	14:30	Talk 24.3 Microwave-assisted pyrolysis of biomass using hzsm-5 catalyst derived from slag waste (Nhlanhla Nyembe, Yusuf Isa)	14:10	14:30	Talk 25.3 Comparative performance of solvents in post-combustion CO <sub>2</sub> capture using rotating packed bed technology (Atuman Samaila Joel, Yusuf Makarfi Isa)
14:30	14:50	Talk 23.3 Application of nanostructured platinum-transition metal alloys to enhance ORR activity in PEMFCs (Siphelo Ngqoloda, Thelma Ngwenya, Mpfunzeni Raphulu)	14:30	14:50		14:30	14:50	Talk 25.4 Decay factor characterisation of paper materials using laboratory- and pilot-scale reactor studies (Thaakira Jabaar, Tobi Louw, Eugene Van Rensburg)
14:50	15:10		14:50	15:10		14:50	15:10	Talk 25.5 A sensitivity analyses on the cost of production and storage of green ammonia in South Africa (Clive Tinashe Moyo, Paramespri (Prathieka) Naidoo)
15:10	15:40	Tea & Poster Session (Foyer Auditorium 1)	15:10	15:40	Tea & Poster Session (Foyer Auditorium 1)	15:10	15:40	Tea & Poster Session (Foyer Auditorium 1)
15:40	16:20	<b>POSTER Session (ALL presenters to be at their posters)</b>						
<b>Session 26: Water</b>			<b>Session 27: Energy</b>			<b>Session 28: Food &amp; Agriculture</b>		
16:20	16:40		16:20	16:40	Talk 27.2 Phase equilibrium data for CO <sub>2</sub> /methane/CO <sub>2</sub> /H <sub>2</sub> + 2-methyl quinoline (Paul Zwavanda, Paramespri Naidoo, Wayne M. Nelson, Kuvenshan Moodley)	16:20	16:40	Talk 28.2 An economic analysis for the production of food-type products in an integrated sugarcane biorefinery (Monique Klaver, Jeanne Louw, Johann Gorgens)
16:40	17:00		16:40	17:00	Talk 27.3 Flooded mineshaft compressed air energy storage in the Witwatersrand Goldmine Complex – case study of a proposed novel energy storage method (Neil Stacey, Peter Stacey, Diane Hildebrandt, James Fox, David Glasser) Energy (Accepted)	16:40	17:00	Talk 28.3 Soxhlet Extraction of Cinnamon Oil Comparing Particle Size with Different Functional Group Solvents (Naadhira Seedat, Rishen Roopchand)