



Symposium Programme

	Venue 1 - S2024	Venue 2 - S2001	Venue 3 - S2005
8:30	Coffee & Tea		
9:00	Welcoming: Prof Christie Dorfling. General proceedings and announcements: Prof Robbie Pott		
9:10	Keynote: Donald Mjonono - Venue 1 Future-Forward Pharma Factories: Innovations in Modular Plant Designs		
Chair	SLT	CD	CES
10:00	Parallel session 1.1 Marcus Knight Optimizing a method for leaching PGMs from simulated spent auto-catalyst material using ozone & hydrochloric acid	Parallel session 1.2 Hudson McDon Nyikadzawanda Process simulation and technoeconomic assessment of recombinant enzymes used in the production of mRNA vaccines	Parallel Session 1.3 Alida Brown Fractionation of 1-alcohol and n-alkane systems via supercritical CO ₂
10:30	Parallel Session 2.1 Richard Mampana Process development for the valorisation of industrial kelp waste.	Parallel Session 2.2 Calvin Warwick The comparison of pre-treatment methods for cellulosic nanofibril production from sugarcane bagasse	Parallel Session 2.3 Viola Hofmann The interdependencies of food and water within the water-energy-food nexus for the City of Cape Town
11:00	Intermission and poster viewing session		
Chair	TML	ZM	Dr Erik Woolfardt
11:30	Parallel Session 3.1 Gina Wilkinson The purification and characterisation of fucoidan from the South African seaweed <i>Ecklonia maxima</i>	Parallel Session 3.2 Corné Lourens Metathesis of unsaturated fatty acid ethyl esters for production of value-added surfactants and chemical intermediates.	Parallel Session 3.3 Dominic Vooght Reverse logistics network optimisation and material flow analysis of the recycling of end-of-life lithium-ion batteries in South Africa
12:00	Parallel Session 4.1 Monique Klaver Techno-economic analysis of biorefinery scenarios for scFOS, ethanol, tryptophan, erythritol and collagen production from sugarcane	Parallel Session 4.2 Nadine Buitendach A comparison of experimental and parameterisation uncertainties in the thermodynamic modelling of 1-alcohol and 1-alkane systems	Parallel Session 4.3 Ts'olo Lesofe The impact of thermal treatment on comminution performance of blue mussel (<i>Mytilus edulis</i>) and South African abalone (<i>Haliotis midae</i>) shell waste
12:30	Parallel Session 5.1 Roelof Maritz Investigating options for reducing the environmental impact of hydrometallurgical lithium-ion battery recycling plants using life cycle assessment	Parallel Session 5.2 Isabella Kristensen State estimation and model-based fault detection in a submerged arc furnace	
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13:00	Lunch break		
13:30	Formal postgraduate student group photo outside the Department of Chemical Engineering		
Chair	JTC	RWMP	Dr Nasibe Nosrati
14:15	Parallel Session 6.1 Jordan Ross A techno-economic evaluation of decentralized direct potable reuse.	Parallel Session 6.2 Marisana Masha Quality improvement of liquid fuels derived from waste tire pyrolysis.	Parallel Session 6.3 Alex Schulze-Hulbe Extending the s-SAFT- γ Mie Equation of State to Nonaqueous Alkanolamine-based Carbon Capture Systems
14:45	Parallel Session 7.1 Aiden Burgess Spectroscopic measurement of associating and solvating binary mixtures for the determination of monomer fraction data towards thermodynamic model improvement	Parallel Session 7.2 Henri le Roux The use of spent pulping liquors as binders for chromite pellets	Parallel Session 7.3 Edward Bras Classical actor-critic for the online, continuing adaptation of PI control policies
15:15	Parallel Session 8.1 Thandekile Ndlela Assessing Water-Energy Nexus Dynamics for Sustainable Resource Management in Cape Town: A System Dynamics Approach	Parallel Session 8.2 Jaybe van Rooyen Evaluating decontamination strategies and enzyme dosages for a food waste fermentation process to produce bioethanol	
15:45	Closing and best presenters awards		
16:00	Coffee/Wine & Conversations		