

Towards Net-Zero Circular Economy with Sustainable Energy and Chemical Conversion

In-person | Monday 24th June 2024 | University of Surrey
Wates House, University of Surrey, Guildford, GU2 7XH

PROGRAMME

9:00 - 9:30 Registration

9.30 - 9.40 Welcome (Prof. Jin Xuan, Dr. Hui Luo)

9:40 - 10:10 Prof. Germano Tremiliosi-Filho

Electro-coupling of catalytic hydrogen reaction with the alcohol/biomass oxidation to maximize H₂ production

10:10 - 10:40 Dr Bahman Horri

Green Hydrogen Production Technologies and Future Prospects

10:40 - 11:10 Prof. Joelma Perez

Recent advances on the ethanol and ammonia electro-oxidation reactions on Pt, Pd, Rh, Pd-M and Rh-M nanocatalysts: reaction mechanistic studies and electrocatalysis

11:10 - 11:30 Coffee break

11:30 - 12:00 Prof. Magda Titirici

Sustainable batteries and electrocatalytic processes

12:00 - 12:30 Prof. Jhuma Sadhukhan

Build biorefineries and let the natural world drive the economy

12:30 - 13:30 Lunch break

13:30 - 14:00 Prof. Edson A. Ticianelli

Investigations of the activity of noble and non-noble metals as catalysts for electrochemical energy conversion processes

14:00 - 14:30 Dr. Melis Duyar

Designing dual function materials for integrated carbon dioxide capture and utilisation

14:30 - 15:00 Dr. Lei Xing

AI-enabled data-driven approaches for CO₂ capture and utilisation

15:00 - 15:20 Coffee break

15:20 - 15:50 Prof. Hamilton Varela

The role of kinetic instabilities in electrocatalysis

15:50 - 16:20 Dr. Santosh Kumar

Operando/In-situ Soft X-Ray Spectroscopy at the Diamond Light Source's B07 Beamline

16:20 - 16:50 Prof. Georg Kastlunger

Theoretical assessment of the delicate interplay of the driving forces and the reaction environment in electrocatalysis

16:50 - 17:00 Conclusion remarks

17:00 - 18:00 Campus and Lab tour

18:00 - 22:00 Drinks & dinner at town centre