

Separation and Sensing Workshop

Wednesday 29th November 2017

- 8:30.** Coffee on arrival
- 8:45-9:00.** Welcome & Status Update on the LNG Futures Facility (E. May – UWA)

Session 1:

- 9:05-9:30.** Gas Capture Technologies: spin out companies, field trials and new adsorbents for the Australian Market (K. Li – *University of Melbourne*)
- 9:30-9:55.** A Technical Evaluation of Hybrid Membrane-Absorption Processes for Acid Gas Removal (T. Rufford – *University of Queensland*)
- 9:55-10:20.** Helium Capture from Natural Gas: New technologies to better serve a growing market (A. Arami Niya – UWA)
- 10:20–10:40.** *Morning coffee/tea break*

Session 2:

- 10:40-11:05.** Monitoring concentration polarisation & membrane fouling using MRI (E. Fridjonsson – UWA)
- 11:05-11:30.** Oil-in-Water Quantification using NMR: From the laboratory to the process plant (M. Johns – UWA)

Invited Talk:

- 11:30-12:05.** Adsorption based CO₂ capture in the natural gas industry (P. Webley – *University of Melbourne*)

Working Lunch:

- 12:05-12:30.** Feedback from Attendees on Presentations

Optional Reception:

- 12:30-13:00.** Tour of UWA laboratory facilities

Meeting location: [Indian Ocean Marine Research Centre](#), UWA Crawley Campus

See below for further details on location and parking.

Biographies



Professor Eric May

Eric is the Chevron Chair in Gas Processing at UWA and together with Professor Michael Johns leads the Fluid Science and Resources Division in the School of Engineering, Computing and Mathematics. He is also the Director for the Australian Research Council Industrial Transformation Training Centre for LNG Futures. In 2012 Eric was awarded the Malcolm McIntosh Prize for Physical Scientist of the Year for outstanding achievement in science that advances, or has the potential to advance, human welfare or benefits society. Eric's research expertise is in the area of Gas Processing including thermophysics, gas separations and hydrates.



Professor Michael Johns

Mike's research expertise is in the area of utilising NMR (Nuclear Magnetic Resonance) techniques in various applications including emulsions for the oil, food and agrochemical industries, biofouling of membrane, rock characterisation and earth's field NMR. Joining UWA from Cambridge University in 2011 Mike has been focused on establishing a world leading research group in mobile and robust low magnetic field NMR/MRI. Together with Eric May, Mike leads the Fluid Science and Resources Division in the UWA School of Engineering, Computing and Mathematics.



Professor Paul Webley, University of Melbourne

Paul Webley is Head of Department of Chemical Engineering and Director of the Clean Energy Laboratory at The University of Melbourne. He is former manager of the Carbon Capture Program for the CO2CRC and Director of the Peter Cook Centre for Carbon Capture and Storage at The University of Melbourne. Paul has worked in development and implementation of carbon capture technologies for the past 15 years in industry and academia. His principal research interest is clean energy technologies particularly gas separation, energy storage, and applications of thermodynamics to improve process efficiency. He is the author of more than 200 papers in scientific journals and books, 15 patents, and more than 100 contributions to international and national conferences.

Meeting Location and Directions

The meeting will be held in the Indian Ocean Marine Research Centre (IOMRC) at the University of Western Australia, located at *corner of Fairway and Entrance 4, Crawley, WA 6009*. The IOMRC facility is located 10 minutes drive from Perth CBD. There is paid street parking along Fairway. As it will be semester break, free parking is available in the **yellow** permit student carparks. The closest student carparks are carpark 21 (access from Broadway) or carpark 24 (access from Fairway Entrance 4). A location map is attached overleaf.

