

ACCELERATING RESEARCH WITH IN SITU MICROSCOPY

Friday, September 7th | University of New South Wales, Sydney

Mark Wainwright Analytical Centre within the Chemical Sciences Building High St,
Sydney NSW 2052, Australia

Join Protochips and UNSW Sydney for a hands-on workshop featuring *in situ* TEM products designed to accelerate your research. Featuring presentations and product demonstrations from leading researchers, this event will overview the numerous scientific disciplines turning to *in situ* techniques to discover new dynamic sample behavior in realistic environments.

REGISTRATION AVAILABLE ONLINE:

<http://www.protochips.com/gate/imc19-workshop/>

Friday, September 7th

8:30 - 9:00	Registration and Welcome Help us plan the right amount of food by registering online.
9:00 - 9:30	Introduction to <i>In Situ</i> EM <i>Jordan Moering, Protochips</i> Analyzing samples using <i>in situ</i> EM techniques has enabled unprecedented discovery in research fields ranging from catalysis to drug delivery. The potochips product suite brings heating and electrical testing and liquid or gaseous environmets to any TEM/STEM and in this presentation we will give an overview and show recent results from the Poseidon Select liquid cell and the Fusion heating and electrical system.
9:30 - 10:30	Hands-on Demonstration of Poseidon Select <i>Madeline Dukes, Protochips</i> Experience all steps of Poseidon Select operation including holder assembly, leak check operation, and imaging conditions. Witness real samples undergoing nucleation and growth within the electron microscope.
10:30 - 11:00	Coffee Break Join us for a quick break with light refreshments.
11:00 - 12:00	Hands-on Demonstration of Fusion Heating <i>Remy Bertier, Protochips</i> See how the fusion system enables accurate, uniform sample heating within your TEM. See how Clarity software controls enable precise control of experiment conditions with a simple, user-friendly interface.
12:00 - 1:00	Lunch Lunch will be served in the atrium and is free of charge to registrants.



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* Schedule and times subject to change

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1:00 - 1:45	<p><i>In Situ</i> Edge Engineering in 2D Transition Metal Dichalcogenides <i>Ray Unocic, Oak Ridge National Lab</i></p> <p>Learn how Unocic and colleagues directly imaged the edge evolution of pores in Mo_{1-x}W_xSe₂ monolayers using Fusion and the Nion UltraSTEM100 to demonstrate that these edges can be structurally transformed to metastable configurations by thermal and chemical driving forces.</p>
1:45 - 2:30	<p>Invited Speaker <i>TBD</i></p> <p>Listen to a leading researcher talk about their experience using Protochips Products.</p>
2:30 - 3:30	<p>Demonstration of Poseidon Select Liquid Heating <i>Madeline Dukes, Protochips</i></p> <p>Learn how Poseidon select can be expanded to incorporate liquid heating capabilities and witness chemical reactions occurring at high temperatures during this demonstration.</p>
3:30 - 4:00	<p>Coffee Break</p> <p>Join us for a quick break with light refreshments.</p>
4:00 - 5:00	<p>Hands-on Demonstration of Fusion Electrical Testing <i>Remy Bertier, Protochips</i></p> <p>See how Fusion's precise electrical controls allow you to apply and measure the electrical performance of your sample. Learn how sample preparation workflows allow you to quickly and easily study samples ranging from nanowires to FIB lamellae.</p>
7:30 - 9:30	<p>Wrap Up and Conclusions</p> <p>The Protochips team will be available for questions and guests are invited to join us for dinner at a local restaurant.</p>

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