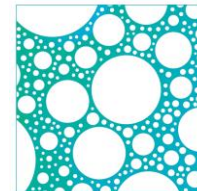


Australasian Colloid and Interface Society

Web: <http://acis.wildapricot.org>; E-mail: acis.enquiries@gmail.com



ACIS Newsletter – Issue 21, June 2020

Welcome

Dear members,

Welcome to our 21st issue of ACIS News! We produce a quarterly newsletter - sent around in February, May, August, and December - to keep ACIS members informed of our initiatives and for members to directly communicate with our Society. We publish job announcements, meetings of interests to our society, career development opportunities and any exciting research that you would like to share with us. To keep you up to date with the on-goings in our colloids society, please send your suggestions and items for the next newsletter to boonmian.teo@monash.edu.

News

ARC Centre of Excellence for Eco-Efficient Beneficiation of Minerals: A New Dawn for Australian Minerals

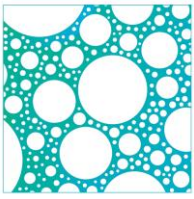
<https://coeminerals.org.au/>

In October 2019, the ARC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals was awarded. Since then the Director [Kevin Galvin](#) and the COO Annemarie Fawkner at the University of Newcastle have been busily working with the leadership team drawing up the interinstitutional agreements and working with the over 30 different chief investigators on their subproject schedules with the goal to be signed and sealed ready to start on 1 July 2020.

What's behind the long name? Steep goals to transform mineral processing via a doubling of energy and water productivity in the mining sector by 2030 in order to meet the global demand for metals (there are 60 metals in your smartphone!) and simultaneously reduce our environmental footprint. A big part of this is the intention to transform the recovery of minerals from low grade ores by using coarser particles to reduce energy consumption in grinding, and targeted reduction in the use of tailings dams and maximising process water reuse.

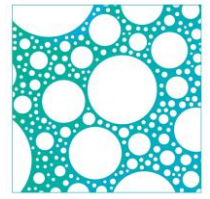
This Centre brings together researchers from eight Australian Universities (Newcastle, Deakin, UQ, Melbourne, Monash, UniSA, UNSW and Curtin), CSIRO, industry experts and leading international researchers. It will engage more than 70 doctoral and 15 post-doctoral researchers working towards achieving transformational solutions for the minerals industry. This is possible through the generous ARC award of \$35M and partner contributions taking the total to \$48M over 7 years.

[Prof. Erica Wanless](#), University of Newcastle



Australasian Colloid and Interface Society

Web: <http://acis.wildapricot.org>; E-mail: acis.enquiries@gmail.com



IACIS 2021 Update

The Organising Committee for IACIS 2021 has been closely monitoring the advice from the Federal Government regarding the easing of restrictions related to the COVID-19 pandemic and is currently continuing to work towards holding a vibrant and informative conference in June 2021 as originally planned.

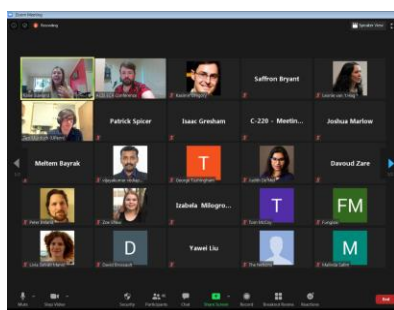
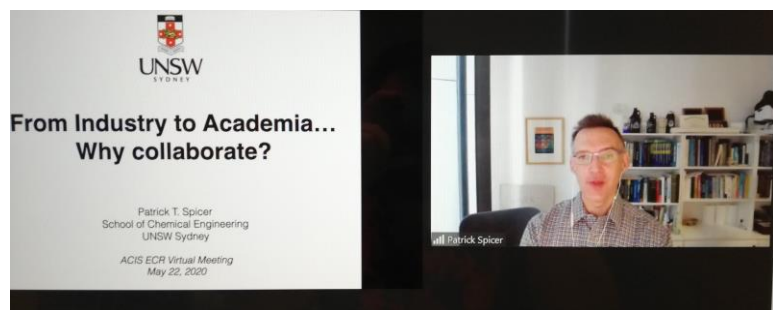
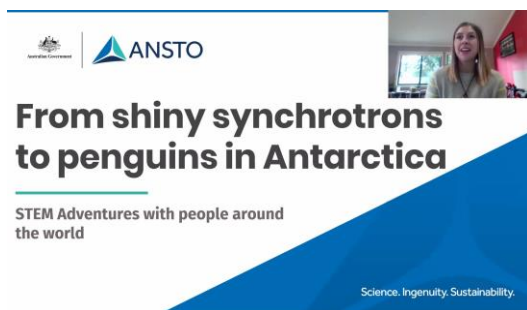
The committee recognises that the situation could change between now and then, so you are urged to check the IACIS 2021 webpage (iacis2021.org) for the latest updates.

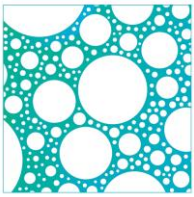
ECR Online Conference

ACIS held the 1st Early Career Researcher (ECR) online conference on Friday the 22nd of May, 2020. The event was held over Zoom and attracted 127 delegates from over 57 domestic and international institutions. In total, there were 19 presentations from ECRs, as well as 3 Keynote presentations during the event.

The event highlighted ACIS's commitment to nurturing early career researchers (ECRs). Importantly, it provided a platform for late-stage PhD students and ECRs in the Colloid and Interface field to engage, share their experiences, and learn from others in the field.

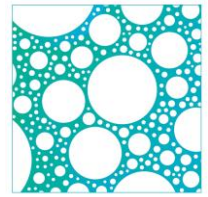
The conference organisers - [Dr. Aaron Elbourne](#) (RMIT University), [Dr. Timothy Murdoch](#) (University of Pennsylvania), [Dr. Saffron Bryant](#) (RMIT University), and [Dr. Ben Humphreys](#) (Lund University) - would like to thank all who attended and contributed.





Australasian Colloid and Interface Society

Web: <http://acis.wildapricot.org>; E-mail: acis.enquiries@gmail.com

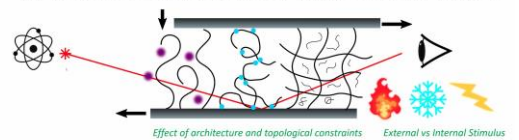


ECR Online Conference (cont.)

The ACIS and the organisers would again like to thank A/Prof. [Patrick Spicer](#) (UNSW), [Dr. Katie Sizeland](#) (ANSTO), and [Dr. Robert Barker](#) (University of Kent) for presenting engaging and inspiring keynote presentations. Their insight into academia, building connections, and their honesty regarding the “highs” and “lows” of academic life were invaluable.

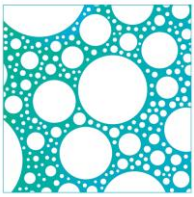
It was a fantastic event, both for scientific presentations and community morale. The high caliber of Australian and international science presented at the conference was inspiring to all that attended.

How have I Characterized Thin, Squishy Films?



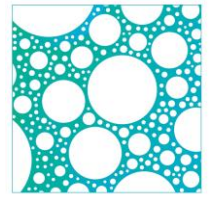
[1] T.J. Monteith et al., *Polymer*, 2018, 136, pp 229-240





Australasian Colloid and Interface Society

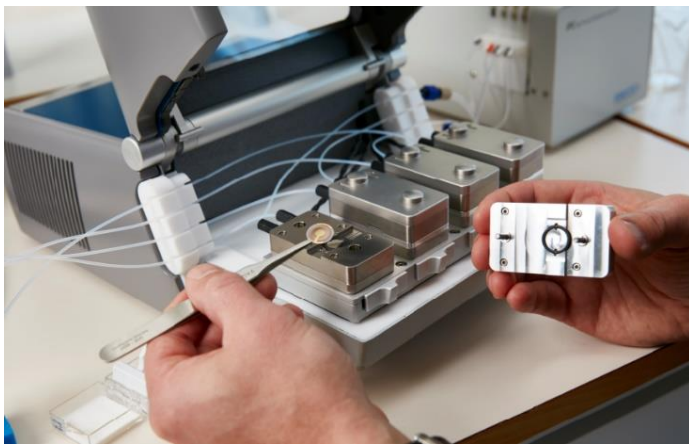
Web: <http://acis.wildapricot.org>; E-mail: acis.enquiries@gmail.com



Improve the accuracy and reliability of surface measurements in materials research and quality control

The **Sigma 700/701 force tensiometer** is a powerful and accurate technique to measure static surface and interfacial tension of liquids as well as dynamic contact angle, surface free energy, critical micelle concentration (CMC) and wettability. In addition, it is the only method to determine the absorption and contact angle of a packed powder or of fibre beds using the Washburn method. The wetting of textiles and individual fibres can also be studied with Sigma force tensiometers.

Q-Sense Quartz Crystal Microbalance with Dissipation monitoring (QCM-D) is a label-free, surface sensitive technique that enables real-time evaluation of material properties and surface coatings, as well as analysis of how biomaterials behave and affect proteins and cells. Monitoring changes of mass at the surface



as a function of time, Q-Sense makes it possible to quantify how fast the adsorption/desorption is and how much material that adsorbs to, or desorbs from, the surface. Q-Sense also senses the mechanical properties of the surface-adhering layer making it possible to analyse the arrangement of the adsorbed biomolecules such as the molecular packing density, conformation and the effect of temperature, pH etc..



[Please register here for surface science webinars from Biolin Scientific](#)

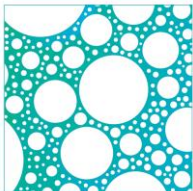
For more details or for a demonstration, please contact us.

ATA Scientific Pty Ltd

+61 2 9541 3500

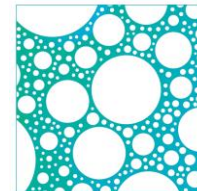
enquiries@atascientific.com.au

www.atascientific.com.au



Australasian Colloid and Interface Society

Web: <http://acis.wildapricot.org>; E-mail: acis.enquiries@gmail.com



Activities

Join our Awards, Communications, Conferences and Events Committees

ACIS needs its members to be actively engaged. Please let us know if you would like to be involved in the committees that will run the activities of the Society: *Awards; Communications; Conferences and Events*. Or if you would like to propose other activities we should be running. **We especially invite students and early-career researchers to become involved.** Please email your interest to acis@colloid-oz.org.au.

Visiting Scientist Register

Are you planning to host a visit by an outstanding scientist in the colloid and interface field? Why not let ACIS members know about the visit? We aim to keep track of visiting scientists, to facilitate their introduction to the Australasian scientific community. Please email details of the visit to acis@colloid-oz.org.au.

ACIS Membership

Please encourage your colleagues, students and industrial partners working in the field of colloids and interface to join us. General membership is \$100 per annum. The membership year is from 1st March each year. Memberships paid after this date are valid until 28th February of the following year. More information is available on our website <http://colloid-oz.org.au/>.



Use our LinkedIn Group to tell people your news

ACIS is now present on LinkedIn. Please join our LinkedIn group and post discussion items on job ads, conference calls, and interesting facts about the wonderful world of colloid and surface science.

The Newsletter team is:

Boon Teo – boonmian.teo@monash.edu

Christine Browne – christine.browne@monash.edu

