

## ANZMAG NEWS - FEBRUARY 2024

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Dear all,

Welcome to February 2024 edition of ANZMAG. I hope you have all had a great start to 2024 – can you believe it is almost March already?

### CONFERENCES

- The 20<sup>th</sup> European Magnetic Resonance Congress (Euromar) will be held from 30<sup>th</sup> June to 4<sup>th</sup> July in Bilbao, Spain. See <https://euromar2024.org> for details.
- The 63rd Annual Rocky Mountain Conference on Magnetic Resonance (RMCMR) will take place August 4-8, at the Copper Conference Center in Copper Mountain, US. See <https://rockychem.com>
- The Royal Society of Chemistry's **Annual #RSCPoster Conference** is on LinkedIn this year not on X (Twitter). It will run on over 24 hours from 5<sup>th</sup> to 6<sup>th</sup> March. This year you can submit a poster across 13 subject areas, from analytical chemistry to engineering. It is a great way to get your work seen and you can use an existing poster if you have one. Posters win prizes if chosen by the subject chairs (I am one of the chairs of the analytical division). See <https://www.rsc.org/our-events/rsc-poster/> details.
- Not really a conference but a bit of fun. The Journal of Biological Chemistry is running the fifth annual JBC Methods Madness where influential biochemical techniques are pitted against one another in a three-week competition for JBC Methods glory. NMR is in the first 16. See <https://www.asbmb.org/journals-news/jbc-methods-madness> for details.

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### JOBS

- **QUT** are looking for a NMR Senior Technologist. The role is advertised as a professional stream HEW6 position. They are particularly keen on candidates with solid-state NMR experience to help users exploit QUT's new 4mm CP-MAS iProbe will have. While the role will be NMR focussed, the Senior Technologist will also provide some support to the CARF nanoimaging/surface analysis platforms that are co-located with the NMR facility. See <http://tinyurl.com/QUTNMR> for details.
- Across the ditch the **University of Auckland** are looking for a Dean for the Faculty of Science. See <https://www.nature.com/naturecareers/job/12814638/dean-faculty-of-science/> for more.

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### NEW NMR SOLVENTS VENDOR- ADKL LABS

Dr Jason Dang has recently left Monash University after 15 years is working in a new role at **ADKL Labs** in North Melbourne. The company is a contract research lab- specialising in custom synthesis, and reverse engineering of formulations as well as an Australian distributor for various companies including Chemglass, Asynt and NMR solvents. Jason is committed to providing great service, and is willing to negotiate on price. You can see some of their catalogue at <https://www.dropbox.com/sc/fi/cjse3h6g2nk1gb44c9ebo/ADKL-NMR-solvents.pdf?rlkey=rhpauk1htdhgs6rc58or6nge&dl=0> and contact Jason on [j.dang@adklabs.com.au](mailto:j.dang@adklabs.com.au)

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### ANZMAG WEBSITE

Thanks to the great work of the ANZMAG website committee the new website is up and running and even has all previous editions of ANZMAG News on it. If you haven't had a look yet, check it out at <https://anzmag.com.au>

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## AWARDS

- The **Tall Poppy Awards** from the Australian Institute of Policy and Science for ECRs are open for applications and will close on 22<sup>nd</sup> April 24. See <https://aips.net.au/2024-young-tall-poppy-awards-2/>
- Metrohm and the electrochemistry Division of the Royal Australian Chemical Institute (EDRACI) are running the Young Electrochemist Awards again in 2024 to reward outstanding young electrochemists in the Australia & New Zealand region. It is open to PhDs and Postdocs. Deadline is 18<sup>th</sup> March. See [https://www.metrohm.com/en\\_au/discover/events/2024/EDRACI-2024.html](https://www.metrohm.com/en_au/discover/events/2024/EDRACI-2024.html)
- The **Australian Academy of Science** has just opened nominations for its awards which cover early mid and later careers. More details at <https://www.science.org.au/supporting-science/awards-and-opportunities> I am sure that there are plenty ANZMAGers who could be nominated. I have been told that it helps to have an Academy Fellow as a nominator as they can speak up for you in the academy. There are several Academy Fellows in ANZMAG.
- The **Australian Museum Eureka Prizes** are the country's most comprehensive national science awards, honouring excellence across the areas of research & innovation, leadership, science engagement, and school science. See <https://australian.museum/get-involved/eureka-prizes/> for details for this year.

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## PAPER OF THE MONTH

This month's Paper of the Month is on the topic of Benchtop NMR. The title is "Analysis of complex mixtures with benchtop nuclear magnetic resonance: Solvent suppression with T2 and diffusion filters" by Le-McClain *et al.* As many ANZMAGers will know benchtop NMR spectrometers are being employed in a wide variety of applications from undergraduate teaching and research in academia to quality control and process monitoring in industrial settings. However, some challenges remain, for example removing the signal from protonated solvents and dealing with spectra of complex mixtures due to partial or complete signal overlap. To address some of these challenges this paper investigates NMR techniques that enable quantitative analysis of different components in mixtures. The pulse sequences can be used to suppress one or multiple solvent peaks, to filter out signals by spin-spin relaxation time (T2), or to separate signal components by a molecule's diffusion coefficient (NMR diffusometry). The authors also discuss quantitative analysis of excipients in buffers for therapeutic proteins to highlight the usefulness of these NMR pulse sequences in the analysis of complex samples with benchtop NMR spectrometers. You can read more at <https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/10.1002/mrc.5438> if keen.

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## CALL FOR NEWS

If anyone has any news items, good news stories, great new papers, creative idea etc that you would like to see in ANZMAG news please let me know on [oliver.jones@rmit.edu.au](mailto:oliver.jones@rmit.edu.au) I am keen to get good representation across the different fields of magnetic resonance and feature news from Australia and New Zealand. Thanks all.

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## STORIES FROM THE WEB

- <https://www.azom.com/equipment-details.aspx?EquipID=8890> - Bruker have a benchtop EPR spectrometer out. The Magnettech ESR5000 provides X-band sensitivity plus a wide field range.
- <https://www.monash.edu/news/articles/clearer-and-faster-5-minute-mri-on-the-horizon> - An interesting story from Monash about using AI to create a 5 minute MRI body scan.
- <https://medicalxpress.com/news/2023-06-refining-nmr-technique-drug-tool.html> - a story about the use of Benchtop NMR for testing of illicit drugs being developed at the University of Canterbury, NZ.

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