

ANZMAG NEWS - SEPTEMBER 2024

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Dear all, Welcome to September 2024 edition of **ANZMAG News**. I hope you have all had a great month.

IUPAC 2025 DISTINGUISHED WOMEN IN CHEMISTRY/CHEMICAL ENGINEERING AWARD – CALL FOR NOMINATIONS

The International Union of Pure and Applied Chemistry (IUPAC) is pleased to announce the call for nominations for the IUPAC 2025 Distinguished Women in Chemistry or Chemical Engineering Awards. Awardees will be selected based on excellence in basic or applied research, distinguished accomplishments in teaching or education, or demonstrated leadership or managerial excellence in the chemical sciences. The Awards Committee is particularly interested in nominees with a history of leadership and/or community service during their careers. Full details at <https://iupac.org/2025-women-in-chemistry/> Nominations should be received by 1 November 2024.

NOMINATION OF ISMAR FELLOWS FOR THE 2025 ELECTION

Anyone who is a member of ISMAR may wish to nominate candidates of underrepresented groups for this year's new Fellows election. Each nomination should include a nomination statement of up to 2500 characters, a list of up to 6 publications, and a concise citation. Nominations shall be submitted through this the form at <https://forms.gle/JXbveGWaQcW8qhrU9> before 1 November 2024.

GLOBAL NMR DISCUSSION MEETINGS CALL FOR ADDITIONAL ORGANIZERS

The organisers of the Global NMR Discussion Meetings are putting out a call for graduate students and post-docs who are interested in joining their volunteer-run organization. The group has an emphasis on the importance of NMR education and developing the next generation of magnetic resonance spectroscopists. What better way is there than by getting involved behind the scenes as an organizer? If you or someone you know would be interested in working with the group, please send them an email at globalnmrdiscussionmeeting@gmail.com with a short (<200 word) motivation statement.

Thanks to Dr Marco Sani at the University of Melbourne for the info.

APPLICATIONS FOR ARC INDUSTRY FELLOWSHIPS SCHEMES 2025 OPEN

Applications for Early Career Industry Fellowships, Mid-Career Industry Fellowships and Industry Laureate Fellowships for funding commencing in 2025 are now open in the ARC Research Management System (RMS) and will close at 5:00pm (AEDT) on Tuesday 12 November 2024. See <https://www.arc.gov.au/news-publications/media/network-messages/now-open-applications-arc-industry-fellowships-schemes-2025>

PAPER OF THE MONTH

Septembers Paper of the month is from Nir-Arad et al. and is on pulsed electron paramagnetic resonance (EPR) experiments performed under magic angle spinning (MAS) at high magnetic field. The idea here is that, unlike NMR and dynamic nuclear polarization (DNP), which are commonly (though not always) performed at high magnetic fields and often under MAS to maximize sensitivity and resolution, EPR is usually measured at low magnetic fields and, very rarely under MAS, due to great instrumental

challenges involved. The authors suggest that this hampers the investigation of DNP mechanisms, in which electron spin dynamics play a central role, because no experimental data about said electron spin dynamics under DNP-characteristic conditions are available. To solve this the team present a dedicated, homebuilt MAS-EPR probehead and show the pulsed MAS-EPR spectra of P1 center diamond defect recorded at 7 tesla. Their results reveal unique effects of MAS on EPR line shape, intensity, and signal dephasing. Time-domain simulations reproduce the observed changes in the line shapes and the trends in the signal intensity. You can read more about this at High-field pulsed EPR spectroscopy under magic angle spinning. See <https://www.science.org/doi/10.1126/sciadv.adq6073> for details.

JOBS AND FELLOWSHIPS

- UTS are looking for a lecturer or senior lecturer in **organic chemistry** - <https://www.seek.com.au/job/78825105?ref=search-standalone&type=standout&origin=showNewTab#sol=bbb169b27ae41305b49c425199e17e3fc30e41f9> Applications close 3 pm, 11 Oct 2024.
- The University of Newcastle is looking for a lecturer **environmental science**. The position is open to anyone with experience to complement the existing research interests of the discipline https://mcusercontent.com/5a84fd7c48f39230daed3620b/files/4190f993-393d-c40a-c69a-3feb56b82f09/Position_Description_Level_B_Lecturer_ESM_2024_UPDATED.pdf Applications close 11:55pm. 14 Oct 2024.
- Deakin University are looking for a **Head of School, Life and Environmental Sciences** - <https://careers.pageuppeople.com/949/cw/en/job/563606/head-of-school-life-and-environmental-sciences> Applications Close 21 Oct 2024.
- UNSW is looking for Associate Professor/ Professor of **Biomedical Engineering** - <https://external-careers.jobs.unsw.edu.au/cw/en/job/526245/associate-professor-professor-of-biomedical-engineering-paul-trainor-chair> Applications close 11:55pm. 23 Oct 2024.
- Another job from UNSW, this time a lectureship in **Environmental Science** (lots of environmental jobs this month) - <https://external-careers.jobs.unsw.edu.au/cw/en/job/527769?> Applications close 23 Oct 2024
- There are two teaching focussed roles in **Biology** currently advertised at The University of Melbourne <https://jobs.unimelb.edu.au/en/job/918357/lecturer-in-biology-2-positions-available> Applications close 11:55pm 24 Oct 2024.
- Applications are open for the next round of the **Forrest Research Foundation PhD Scholarships** for 2025. If you are aware of excellent potential PhD candidates who would like to undertake research in any of the 5 universities in Western Australia, please forward them to this link <https://www.forrestresearch.org.au/scholarship/> Applications Close 31 Oct 2024.

STORIES FROM THE WEB

- <https://interestingengineering.com/innovation/epr-on-chip-food-quality-control> – I am sure we can all get behind the idea of a low-cost EPR sensor on chip to boost quality control of food and beer products.
- <https://healthcare-in-europe.com/en/news/beating-heart-mri-video.html> – This story talks about generating precise live MRI images of the beating heart with the help of smartly trained neural networks.
- https://phys.org/news/2024-09-nmr-spectroscopy-method-faster-chiral.html#google_vignette – Find out if NMR be used as a faster way to determine chiral structure of molecules in this article.