

ANZMAG NEWS – JANUARY 2021

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Dear all,

Welcome to the first edition of ANZMAG News for 2021. I hope you all got a chance to rest over the holidays and that 2021 brings you many grants and papers.

MEETINGS

The 2021 ISMAR and APNMR conference will be held during August 22-27. You can submit an abstract for a poster or talk and find further details online [here](#).

The second online Intercontinental Magnetic Resonance Conference on Methods and Applications, ICONS-2021, will be held on February 10 - 12 (2021). To take part in the event and get Zoom-links for the sessions, please register online [here](#).

A list of further conferences can be found online [here](#). If you have a meeting you would like to see advertised in ANZMAG news please let me know.

JOBS

- Griffith University are currently recruiting for a Level C/D Lecturer in NMR, located at their Brisbane campus - closing date February 15, 2021. Click [here](#) for the job ad.
- The University of Queensland is looking for a senior lecturer in Senior Lecturer in Biomedical Engineering. See [here](#) for details.
- RMIT is looking for an Early Career Development Fellow in Nutrition and Food Technology. See the job advert [here](#) if keen.

GRANTS AND AWARDS

Lord Mayor's Charitable Foundation (LMCF) is now accepting project grant 'enquiries' for its [Innovation Grants](#), open until 2pm Friday 12 February 2021.

There is a call for Nominations for ISMAR's [Anatole Abragam Prize for Young Investigators](#) Nominations should be sent by e-mail to the Secretary General alexej.jerschow@nyu.edu by March 1, 2021. They should include the following documents, assembled into a single pdf file Nomination letter (2 pages max), At least one and no more than 2 seconding letters (two pages max).

PAPER OF THE MONTH

This month's paper of the month is on the topic of benchtop NMR. The title is "Application of the New 400 MHz High-Temperature Superconducting (HTS) Power-Driven Magnet NMR Technology for Online Reaction Monitoring: Proof of Concept with a Ring-Closing Metathesis (RCM) Reaction" I wasn't sure if the e-mail alert hadn't accidentally added a 0 to this title but apparently not. The paper describes a prototype NMR instrument with a 400 MHz cryogen-free power-driven high-temperature superconducting magnet installed in a chemistry laboratory fume hood for online monitoring of reactions. You can read all about it [here](#).

3D PRINTING NMR SPECTRA AND MRI DATA

Have you ever wanted to bring your 2D NMRs to the real world? Well, now you can using 3D printing. Here are a couple of examples I made as part of a recent paper in the Journal of Chemical Education – read more on the process [here](#) if keen. I've just worked out a way to print 1D NMR spectra (using a proxy Y axis) as well.

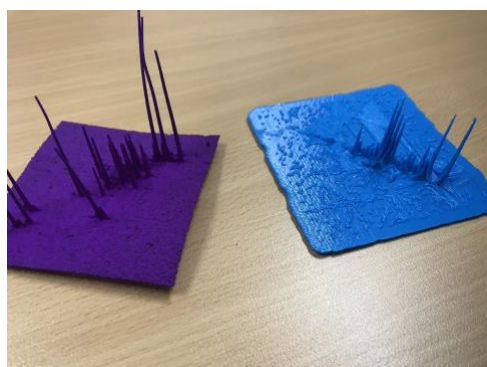


Figure 1: 3D printed NMR spectra. HSQC (purple) on the left and a COSY (blue) on the right.

It is also possible to print out 3D structures from MRI scans. I have not tried this but there are a few tutorials outlining the process on the web. See <https://www.instructables.com/3D-print-your-own-brain/> for one example.

STORIES FROM THE WEB

- <https://www.news-medical.net/whitepaper/20190610/Monitoring-Photodegradation-with-EPR-Spectroscopy.aspx>

This is an interesting story about using electron paramagnetic spectroscopy as a new approach to detect pancreatic cancer. Quite clever work I thought.

- <https://scitechdaily.com/magnetic-resonance-imaging-helps-unravel-the-mysteries-of-sleep/>

The is an interesting story on the use of MRI to helps unravel the mysteries of sleep

- <https://www.foodprocessing.com.au/content/food-design-research/news/new-way-to-authenticate-coffee-beans-discovered-302064213>

The use of NMR as a new way to authenticate Coffee beans.