

ANZMAG NEWS – JULY 2021

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Dear all,

Welcome to the July 2021 edition of ANZMAG News. I know a lot of you reading this will still be lockdown (including me). I know it is tough and if I can do anything to help please let me know.

PAPER OF THE MONTH

The July paper of the month is by Abhishek Gupta, Timothy Stait-Gardner, and Bill Price. It is Dr Gupta's first paper as a corresponding author and asks the question **Is It Time to Forgo the Use of the Terms "Spin-Lattice" and "Spin-Spin" Relaxation in NMR and MRI?** It presents several arguments (both fundamental and quantum mechanical) for their case. The authors have also taken the opportunity to present a proper conceptual explanation of both the NMR relaxation processes in simple terms while clarifying, and discussing the potential origins of, some common confusions, nuances in the terminology, and contradicting definitions and explanations in the literature. You can read more on this at <https://pubs.acs.org/doi/10.1021/acs.jpcclett.1c00945?ref=pdf>

JOBS AND SCHOLARSHIPS

- PhD scholarship: New structural biology methods for proteins with applications in drug discovery and disease is available at the Queensland Brain Institute. See <https://search.careers.uq.edu.au/caw/en/job/515645/phd-scholarship-new-structural-biology-methods-for-proteins-with-applications-in-drug-discovery-and-disease> for details.
- Several MRI jobs are advertised this month. You can see them at <https://www.seek.com.au/MRI-jobs>

SEMINARS

- The next ANZMAG monthly virtual seminar is **on Wed 1st September at 11 am AEST**. Please register at <https://bit.ly/3BIALyq> - The talks are as follows
 - Sensitivity-Enhanced ¹⁹⁵Pt Solid-State NMR Spectroscopy for the Structural Characterization of Heterogeneous Catalysts
Prof Aaron Rossini (Iowa State University)
 - Insights into the Interaction between Immobilized Biocatalysts and Metal-Organic Frameworks: A Case Study of PCN-333
Wenjie Yang (University of Sydney)
- Benchtop NMR powerhouse Magritek are running an online seminar entitled "**Fast multinuclear benchtop NMR spectroscopy – how the highest sensitivity saves you time and enables new applications**" on the 31 August 2021 at 5pm EST. See <https://bit.ly/3sUgFbq> for details and to register

NEW NMR MOOC

A new Massive Open Online Course (MOOC) "**Basics of Nuclear Magnetic Resonance**", came to my attention this month. It is a 5-week program aimed at providing the participants with basic knowledge about NMR. It is intended for undergraduate and graduates as well as educators and professionals who need to gain proficiency as NMR users. If you are interested, please register through the website <https://www.fun-mooc.fr/en/courses/basics-nuclear-magnetic-resonance>.

NMR PEAKS SOFTWARE

NMR Solvent Peaks is a conveniently searchable version of the ungainly table of NMR data most organic chemists keep a copy of. Instead of searching through the table for a peak near your unidentified peak, just enter your solvent and the peak's multiplicity and location and you'll have a short list of candidate impurities. You can get it online here <https://nmrpeaks.com> and on the App store at <https://t.co/WveatOb6tr?amp=1>

AWARDS & GRANTS

- **10x Genomics and Millennium Science Fellowships** are available to facilitate application of 10x Genomics Chromium Technologies for early and mid-career scientists to enable innovative discoveries. See <https://www.msscience.com.au/view/landing-pages/10x-genomics-millennium-science-fellowship-schemes> for details.
- **The Capstone Editing Grant** for Mid-Career Researchers provides up to A\$5,000 of seed funding for one researcher per year to undertake an innovative research project. See <https://www.capstoneediting.com.au/midcareer-grant> for details.
- **The Johnson & Johnson Scholars Program** aims to fuel the development of female STEM2D leaders and feed the STEM2D talent pipeline by awarding and sponsoring women at critical points in their research careers. See <https://www.jnj.com/wistem2d-university-scholars> for details.

JUST FOR FUN

I came across this Chemistry related store on Etsy last month. I thought it might interested the Chemists and there is even something there for the EPR spectroscopists ☺ See <https://www.etsy.com/au/shop/RealScienceMerch> for more.

STORIES FROM THE WEB

- <https://bit.ly/3DrNUYI> - This story covers a short overview of EPR Spectroscopy.
- <https://bit.ly/3zvUMBD> - Click this link to see how MRI has been used to reveal epigenetic changes in the brain for first time. You may also like this link which discusses the 50th Anniversary of MRI - <https://bit.ly/2WBjC9V>
- <https://bit.ly/3kDZHu0> - This article is about using NMR spectroscopy to find over 7,700 Chemical Formulas in 400 Beers from 40 Countries.