



## ANZMAG NEWS DECEMBER 2023

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Dear all,

Welcome to the ANZMAG e-newsletter for December 2023 and the last one for the year – but don't worry, we will be back in the new year. Before we start, if anybody is still Christmas shopping you might like <http://chemisttree.com/>. This is in addition to the list of sites sent last month.

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### PAPER OF THE MONTH

Since it is Christmas, I thought I would include a fun paper this month. The topic is MRI imaging. The title is "Magnetic Resonance Imaging: A Tool for Pork Pie Development". The paper focusses on the traditional British pork pie, a delicacy consisting of roughly chopped pork cooked in a hot water pastry crust. I am told that due to shrinkage of the meat during cooking, the gap formed around the meat is usually sealed using a gelatin-based jelly to exclude air and thus help to preserve the pie. The properties of the jelly are such that it will ingress into the pastry crust causing undesirable softening. The jelly is traditionally produced by simmering pig trotters with seasoning for several hours. In this paper the authors demonstrate the potential of magnetic resonance imaging (MRI) as a tool for investigating the conditions required for producing jellies with different properties and present two examples of this use. Firstly, they demonstrate that MRI can determine the ability of water to diffuse through the jelly which is critical in minimizing the amount of moisture moving from the jelly to the crust. Secondly, the impact of jelly temperature on the penetration length into the crust is investigated. These examples highlight the power of MRI as a tool for food assessment and they get some neat images of the pies. See <https://pubmed.ncbi.nlm.nih.gov/28239124/> to read for yourself.

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### JOBS

- The University of the Sunshine Coast are looking for a senior lecturer and a lecturer in Biomedical Science. See <https://www.timeshighereducation.com/unijobs/listing/359170/senior-lecturer-in-biomedical-science/> and <https://www.timeshighereducation.com/unijobs/listing/359172/lecturer-in-biomedical-science/> for the details.
- UNSW is looking for a Dean of Medicine & Health. See <https://www.timeshighereducation.com/unijobs/listing/359138/dean-of-medicine-and-health/>
- The University of Vienna is looking for a senior scientist to help manage the NMR core facility. See <https://www.timeshighereducation.com/unijobs/listing/360772/senior-scientist-life-sciences/>



## AWARDS AND GRANTS

- ACS Environmental Au is seeking nominations (including self-nominations) for early-career investigators who are pushing scientific boundaries, to be celebrated as the 2024 Rising Stars in Environmental Research. See <https://connect.acspubs.org/2024EnvSciRisingStars>
- If you have an ECR doing Mass Spec and /or Chromatography as well as NMR you might consider nominating them for LCGC's Rising Stars of Separation Science. See <https://www.chromatographyonline.com/view/rising-stars-of-separation-science-nomination-form>
- The Ian Potter Foundation Environment Grant are open - <https://www.ianpotter.org.au/what-we-support/program-areas/environment/>
- Don't forget LIEFS will be due early in the new year, your Uni may have an EOI process due very early Jan.

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## USEFUL LINKS

- A list of Upcoming Magnetic Resonance Events in 2024 - <http://t.ly/4laEY>
- The Australia Academy of Science has a handy list of awards at <https://www.science.org.au/supporting-science/recognition/external-sources-of-recognition>
- If anyone is interested in social media and looking to find Chemists on platforms other than X (formally Twitter) there is a list at <https://tinyurl.com/bp7sr4e6>

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## STORIES FROM THE WEB

- <https://www.miragenews.com/ustc-achieves-in-situ-epr-spectroscopy-with-1117061/> - Read how in situ EPR Spectroscopy was achieved with nanodiamond sensors.
- <https://github.com/mri4all> - A team of scientists designed and built a fully functional MRI machine in just four days! Quite a feat. Read more and see how they did it at this link.
- <https://cen.acs.org/analytical-chemistry/challenges-working-legacy-NMRs/101/i40> - Very nice article from C&EN on the challenges of working with legacy NMRs.

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## MERRY CHRISTMAS

Lastly, I would like to thank all the ANZMAG news readers or their help and support this year. I wish you and your families, a very Merry Christmas and a happy and successful 2024.

