

Publications - 2014

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2. Sanjaysinh Makwana, Ruplal Choudhary, Navneet Dogra, Punit Kohli, John Haddock “*Nanoencapsulation and immobilization of cinnamaldehyde for developing antimicrobial food packaging material*” *LWT - Food Science and Technology* **2014**, 57, 470-476.
3. “Comparative study of in situ N₂ rotational Raman spectroscopy methods for probing energy thermalisation processes during spin-exchange optical pumping.” Hayley Newton, Laura Walkup, Nicholas Whiting, Michael J. Barlow, Boyd M. Goodson, Peter Morris, Linda West, James Carriere, Frank Havermeier and Lawrence Ho, *Appl. Phys. B*, published online August 2013 (DOI 10.1007/s00340-013-5588-x); **115**, 167-172 (**2014**).
4. “XeNA: An automated ‘open-source’ 129Xe hyperpolarizer for clinical use.” P Nikolaou, AM Coffey, LL Walkup, BM Gust, N Whiting, H Newton, I Muradyan, M Dabaghyan, K Ranta, G.D. Moroz, MS Rosen, S Patz, MJ Barlow, EY Chekmenev, BM Goodson, *Magn. Reson. Imag.*, **32**, 541–550 (**2014**).
5. “A 3D-Printed High Power Nuclear Spin Polarizer.” P. Nikolaou, A.M. Coffey, L. L. Walkup, B.M. Gust, C.D. LaPierre, E. Koehnemann, M.J. Barlow, M.S. Rosen, B.M. Goodson, E.Y. Chekmenev, *J. Am. Chem. Soc.* **136**, 1636–1642 (**2014**) (dx.doi.org/10.1021/ja412093d); Highlighted in *JACS Spotlight: "Printing Scientific Instruments on Demand"* (Berg, E.G.) dx.doi.org/10.1021/ja500981a, **136**, 1681–1681 (**2014**).
6. “The feasibility of formation and kinetics of NMR Signal Amplification by Reversible Exchange at high magnetic field” D.A. Barskiy, K. Kovtunov, P. He, Q. Best, K. Groome, F. Shi, A.M. Coffey, K.W. Waddell, I. Koptuyug, B.M. Goodson, E.Y. Chekmenev, *J. Am. Chem. Soc.* **136**, 3322–3325 (**2014**).
7. “Multi-Dimensional Mapping of Spin-Exchange Optical Pumping in Clinical-Scale Batch-Mode 129Xe Hyperpolarizers.” P. Nikolaou, A.M. Coffey, K. Ranta, L.L. Walkup, B.M. Gust, M.J. Barlow, M.S. Rosen, B.M. Goodson, E.Y. Chekmenev, *J. Phys. Chem. B.* **118**, 4809–4816 (**2014**).
8. “Heterogeneous Solution NMR Signal Enhancement by Reversible Exchange (HETSABRE).” F. Shi, A.M. Coffey, K.W. Waddell, E.Y. Chekmenev, and B.M. Goodson, *Angew. Chem. Int. Ed. Engl.* DOI: 10.1002 / anie.201403135; **53** (29), 7495–7498 (**2014**).
9. “Temperature-Ramped 129Xe Spin-Exchange Optical Pumping.” Panayiotis Nikolaou, Aaron M. Coffey, Michael J. Barlow, Matthew S. Rosen, Boyd M. Goodson, and Eduard Y. Chekmenev. *Anal. Chem.* **86**, 8206–8212 (**2014**).
10. “High-resolution Low-field Molecular Magnetic Resonance Imaging of Hyperpolarized Liquids”, Aaron Coffey; Kirill Kovtunov Danila Barskiy; Igor Koptuyug; Roman Shchepin; Kevin Waddell; Ping He; Kirsten Groome; Quinn Best; Fan Shi; Boyd M. Goodson; Eduard Chekmenev, *Anal. Chem.* **86**, 9042–9049 (**2014**).
11. “*In situ* and *Ex situ* Low-field NMR and MRI Endowed by SABRE Hyperpolarization.” Danila A. Barskiy, Kirill V. Kovtunov, Igor V. Koptuyug, Ping He, Kirsten A. Groome, Quinn A. Best, Fan Shi, Boyd M. Goodson, Roman V. Shchepin, Milton L.

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27. J.J.M. Jebaraj, D.J. Morrison and **I.I. Suni**, “Hydrogen Permeation through Inconel 718 in Different Metallurgical Conditions,” *Corros. Sci.* **80**, 517 (2014). DOI: <http://dx.doi.org/10.1016/j.corsci.2013.11.002>
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29. Tianyang Wang, Xiaxia Hu, Haiya Sun, Jianfeng Guo, Dongzhi Liu, Wei Li, Lichang Wang, Xueqin Zhou, *Chem. J. Chin. Univ.* **35**(2014)1753-1760: “Photophysical Processes in a Novel Porphyrin-perylene Metallosupramolecule with a Long-Lived Triplet State” (in Chinese w/ English Title/Abstract).
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