

List of Publications within the Pro²NMR project

- [1] J. Perlo, C. Mülder, E. Danieli, C. Hopmann, B. Blümich, F. Casanova, **Digital processing of images of extruded rubber profiles for process control MRI, Measurement, 82 (2016) 466-475.**
- [2] E. Paciok, B. Blümich, Outlook: quo Vadis, NMR?, in: E.O.F. Michael L. Johns, Sarah J. Vogt, Agnes Haber (Ed.) *New Developments in NMR*, The Royal Society of Chemistry, Cambridge, UK, 2016, pp. 310-330.
- [3] M. Goldbach, E. Danieli, J. Perlo, B. Kaptein, V.M. Litvinov, B. Blümich, F. Casanova, A.L.L. Duchateau, **Preparation of Grignard reagents from magnesium metal under continuous flow conditions and on-line monitoring by NMR spectroscopy, Tetrahedron Lett, 57 (2016) 122-125.**
- [4] B. Blümich, Miniature and Tabletop Nuclear Magnetic Resonance Spectrometers, in: R.A. Meyers, ed., *Encyclopedia of Analytical Chemistry*, John Wiley, Chichester, 2016. DOI: 10.1002/9780470027318.a9458
- [5] B. Blümich, NMR zum Mitnehmen, *GIT Laborfachzeitschrift*, 60 (2016) 21-23.
- [6] Y. Zhang, B. Blümich, $G_{int}^2D - T_2$ correlation NMR of porous media, *J Magn Reson*, 252 (2015) 176-186.
- [7] Y. Teymouri, R. Kwamen, B. Blümich, Aging and Degradation of LDPE by Compact NMR, *Macromol Mater Eng*, 300 (2015) 1063-1070.
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- [10] E. Paciok, B. Bernhard, Outlook: quo Vadis, NMR?, in: E.O.F. Michael L. Johns, Sarah J. Vogt, Agnes Haber (Ed.) *Mobile NMR and MRI: Developments and Applications*, RSC The Royal Society of Chemistry, Cambridge UK, 2015, pp. 310-330.
- [11] D. Oligschläger, S. Waldow, A. Haber, W. Zia, B. Blümich, Moisture dynamics in wall paintings monitored by single-sided NMR, *Magn Reson Chem*, 53 (2015) 48-57.
- [12] D. Oligschläger, S. Lehmkühl, J. Watzlaw, S. Benders, E. de Boever, C. Rehorn, M. Vossel, U. Schnakenberg, B. Blümich, Miniaturized multi-coil arrays for functional planar imaging with a single-sided NMR sensor, *J Magn Reson*, 254 (2015) 10-18.
- [13] D. Kreyenschulte, E. Paciok, L. Regestein, B. Blümich, J. Buchs, **Online monitoring of fermentation processes via non-invasive low-field NMR, Biotechnol Bioeng, 112 (2015) 1810-1821.**
- [14] M.H.M. Killner, Y.G. Linck, E. Danieli, J.J.R. Rohwedder, B. Blümich, **Compact NMR spectroscopy for real-time monitoring of a biodiesel production, Fuel, 139 (2015) 240-247.**
- [15] G.R. Fife, B. Stabik, A.E. Kelley, J.N. King, B. Blümich, R. Hoppenbrouwers, T. Meldrum, Characterization of aging and solvent treatments of painted surfaces using single-sided NMR, *Magn Reson Chem*, 53 (2015) 58-63.
- [16] B. Blümich, P. Bluemler, A briefcase full of NMR - NMR from TAS, in: *The Analytical Scientist*, 2015, pp. 24-31.
- [17] B. Blümich, E. Danieli, M. Küppers, J. Perlo, K. Singh, J. Vieß, Magisch magnetisch: Transportprozesse für Energiespeicher, Medizin- und Verfahrenstechnik, in: *RWTH Themen, Dezernat Presse- und Öffentlichkeitsarbeit der RWTH Aachen*, Aachen, 2015, pp. 46-50.
- [18] B. Blümich, NMR to Go - Miniaturized NMR Machine, *G.I.T. Laboratory Journal Europe*, 19 (2015) 22-25.

- [19] Y. Zhang, B. Blümich, Spatially resolved D-T₂ correlation NMR of porous media, *J Magn Reson*, 242 (2014) 41-48.
- [20] S.S. Zaleskiy, E. Danieli, B. Blümich, V.P. Ananikov, Miniaturization of NMR systems: desktop spectrometers, microcoil spectroscopy, and "NMR on a chip" for chemistry, biochemistry, and industry, *Chem Rev*, 114 (2014) 5641-5694.**
- [21] P. Türschmann, J. Colell, T. Theis, B. Blümich, S. Appelt, Analysis of parahydrogen polarized spin system in low magnetic fields, *Phys Chem Chem Phys*, 16 (2014) 15411-15421.
- [22] M. Raue, M. Wambach, S. Glogglar, D. Grefen, R. Kaufmann, C. Abetz, P. Georgopoulos, U.A. Handge, T. Mang, B. Blümich, V. Abetz, Investigation of Historical Hard Rubber Ornaments of Charles Goodyear, *Macromol Chem Phys*, 215 (2014) 245-254.
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- [27] E. Danieli, J. Perlo, A.L. Duchateau, G.K. Verzijl, V.M. Litvinov, B. Blümich, F. Casanova, On-line monitoring of chemical reactions by using bench-top nuclear magnetic resonance spectroscopy, *Chemphyschem*, 15 (2014) 3060-3066.**
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- [30] B.J. van Weerdenburg, S. Glöggler, N. Eshuis, A.H. Engwerda, J.M. Smits, R. de Gelder, S. Appelt, S.S. Wymenga, M. Tessari, M.C. Feiters, B. Blümich, F.P. Rutjes, Ligand effects of NHC-iridium catalysts for signal amplification by reversible exchange (SABRE), *Chem Commun (Camb)*, 49 (2013) 7388-7390.
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- [42] D.E. Demco, A.M. Oros-Peusquens, L. Utu, R. Fechete, B. Blümich, N.J. Shah, Molecular dynamics parameter maps by ^1H Hahn echo and mixed-echo phase-encoding MRI, *J Magn Reson*, 227 (2013) 1-8.
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Additional Publications of Alina Adams in relation to PRO²NMR

1. A. Adams, *Analysis of solid technical polymers by compact NMR*, **TrAc** (invited review, revised version to be submitted).
2. J. Zhang, and A. Adams, *Understanding thermal aging of polyamide 12*, **Polym. Degrad. Stab.** (submitted).
3. Y. Teymouri, A. Adams, and B. Blümich, *Compact low-field NMR: Unmasking morphological changes from solvent-induced crystallization in polyethylene*, **Eur. Polym. J.** (revised version to be submitted).
4. E. Badea, C. Şendrea, C. Carşote, A. Adams, B. Bluemich, and H. Iovu, *Unilateral NMR and thermal microscopy studies of vegetable tanned leather exposed to dehydrothermal treatment and light irradiation*, **Microchem. J.** (submitted).
5. A. Adams, R. Kwamen, B. Woldt, and M. Graß, *Non-destructive quantification of local plasticizer concentration in PVC by ¹H NMR relaxometry*, **Macromol. Rapid Comm.** **36**, 2171-2175 (2015).
6. A. Adams, A. Piezeck, G. Schmitt, and G Siegmund, *Single-sided Nuclear Magnetic Resonance for condition monitoring of cross-linked polyethylene exposed to aggressive media*, **Anal. Chim. Acta**, **887**, 163-171 (2015).
7. K. L. Luska, J. Julis, E. Stavitski, D. N. Zakharov, A. Adams, and W. Leitner, *Bifunctional nanoparticle–SILP catalysts (NPs@SILP) for the selective deoxygenation of biomass substrates*, **Chem. Sci.** **5**, 4895-4905 (2014).
8. N. Sun, M. Wenzel, and A. Adams, *Morphology of high-density polyethylene pipes stored under hydrostatic pressure at elevated temperature*, **Polymer**, **55**, 3792-3800 (2014).
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11. A. Adams and B. Blümich, *Single-sided NMR of semicrystalline polymers*, **Macromol. Symp.** **327**(1), 29-38 (2013).
12. J. Hinterberg, A. Adams, B. Blümich, M. Wilkening, P. Heitjans, S. Kim, Z. A. Munir, R. A. De Souza, and M. Martin, *¹H-NMR measurements on proton mobility in nano-crystalline YSZ*, **Phys. Chem. Chem. Phys.** **15**, 19825-19830 (2013).