

**European Network  
on NMR  
Relaxometry**



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**NEWSLETTER 3  
OF THE COST ACTION**

Date:

**01.09.2017 - 31.03.2018**

Action Chair: prof. dr hab Danuta Kruk

**Events:**

- **Conference on NMR Relaxometry and Related Methods**, 29/01/2018 - 31/01/2018, Turin (Italy)
- **Working Group Meeting**, 1/02/2018 (9.00-13.30), Turin (Italy)
- **Management Committee Meeting**, 1/02/2018 (14.30-19.00), Turin (Italy)
- **Training School: NMR relaxometry for food and environmental applications**, 14/02/2018 - 16/02/2018, Lisbon (Portugal)
- **Training School: NMR relaxometry - theoretical modeling and data interpretation**, 26/02/2018 - 28/02/2018, Graz (Austria)

**Short Term Scientific Mission:**

- **Dr. Matthias BECHMANN**, JKU (Linz, Austria), duration of the mission: 6 days
- **Magdalena Knapkiewicz, PhD student**, Polish Academy of Sciences (Poznań, Poland), duration of the mission: 11 days
- **Federico de Biasi**, duration of the mission: 32 days
- **Nicolas Chanet, PhD student**, Imagerie par Résonance Magnétique Médicale et Multi-Modalités IR4M (Orsay cedex, France), duration of the mission: 12 days
- **Dr. Mathieu Sarracanie**, University of Basel (Allschwil, Switzerland), duration of the mission: 6 days

## Co-authored Action publications:

1. **A combined NMR and DFT study of conformational dynamics in lanthanide complexes of macrocyclic DOTA-like ligands**, J. Blahut, P. Hermann, Z. Tosner, C. Platas-Iglesias, **19**, *Phys. Chem. Chem. Phys.*, 2017, 26662-26671, DOI: 10.1039/C7CP05296K
2. **Paramagnetic  $^{19}\text{F}$  relaxation enhancement in nickel(II) complexes of N-trifluoroethyl cyclam derivatives and cell labeling for  $^{19}\text{F}$  MRI**, J. Blahut, K. Bernášek, A. Gálisová, V. Herynek, I. Císařová, J. Kotek, J. Lang, S. Matějková, P. Hermann, **56**, *Inorg. Chem.*, 2017, 13337–13348, DOI: 10.1021/acs.inorgchem.7b02119.
3. **[Yb(AAZTA)(H<sub>2</sub>O)]<sup>-</sup>: an unconventional ParaCEST MRI probe**, D. Delli Castelli, L. Tei, F. Carniato, S. Aime, M. Botta, **54**, *Chem. Commun.*, 2018, 2004-2007, DOI: 10.1039/C8CC00193F.
4. **Relaxivity Enhancement of Ditopic Bishydrated Gadolinium(III) Complexes Conjugated to Mesoporous Silica Nanoparticles**, F. Carniato, L. Tei, J. Martinelli, M. Botta, *Eur. J. Inorg. Chem.* 2018, 2363–2368, DOI: 10.1002/ejic.201800041.
5. **Oil migration in hazelnut paste/chocolate systems using magnetic resonance imaging**, S. Cikrikci, M. H. Oztop, **12**, *J. Food Meas. Charact.*, 2018, 1460–1472, DOI: 10.1007/s11694-018-9761-0.
6. **Taking a next step toward inert Mn<sup>2+</sup> complexes of open-chain ligands: the case of the rigid PhDTA ligand**, K. Póta, Z. Garda, F. K. Kálman, J. L. Barriada, D. Esteban-Gómez, C. Platas-Iglesias, I. Tóth, E. Brücher and G. Tircsó, **42**, *New J. Chem.*, 2018, 8001-8011, DOI: 10.1039/C8NJ00121A
7. **Mechanistic insights into polyion complex associations**, S. Gineste, E. Di Cola, B. Amouroux, U. Till, J.-D. Marty, A.-F. Mingotaud, C. Mingotaud, F. Violleau, D. Berti, G. Parigi, C. Luchinat, S. Balor, M. Sztucki, B. Lonetti, **51**, *Macromolecules*, 2018, DOI:10.1021/acs.macromol.7b023911427-1440

## Conferences:

1. E. Ralli, O.V. Petrov, C. Mattea, B. Gizatullin, S. Stapf and A. Spyros: **The maturation of Cretan graviera cheese as monitored by high resolution NMR spectroscopy and low field NMR relaxometry/diffusometry**, 10th International Conference on Instrumental Methods of Analysis. Modern Trends and Applications, September 17-22, 2017, Heraklion Crete, Greece, <http://www.ima2017.gr>
2. O. V. Petrov, C. Mattea, E. Ralli, B. Gizatullin, S. Stapf and A. Spyros, **The maturation of Cretan Graviera cheese as monitored by low-field relaxometry, diffusometry and high-resolution NMR spectroscopy**, 14th conference on Magnetic Resonance in Porous Media MRPM, February 18-22, 2018, Gainesville, FL, USA, <https://nationalmaglab.org/news-events/events/for-scientists/international-bologna-conference>
3. P. Rathner: **Stormorken syndrome disease STIM1 protein studied by high resolution NMR**, 10th Edition of international conference on Structural Biology, March 15-16, 2018 Barcelona, Spain, <https://www.technologynetworks.com/analysis/events/euro-structural-biology-2018-290679>