NMRDG Spring Meeting on Diffusion NMR Programme

31 March 2015, University of Birmingham

10.30 Registration and Coffee

11.00 Welcome

Session One *Chair: Dr Mike Ries, University of Leeds*

11.10 **Prof John Christodoulou**, University College London

"Protein folding on the ribosome: the crucial role of diffusion NMR"

11.45 **Dr Iain Day**, University of Sussex

"*Recent developments in size exclusion chromatographic NMR"*

Quickfire poster talks

12.20 **Jane Power***,* University of Manchester

"Broadband DOSY"

12.25 **Dr Giuseppe Pileio**, University of Southampton

"Real-space imaging of macroscopic diffusion and slow flow by singlet tagging MRI"

12.30 **Dr Henrik Müller**, University of Oxford

"Diffusion NMR as a tool for characterising chaperone substrate complexes"

12.35 **Mohamed Ainte**, University of Cambridge

"NMR techniques for measuring transport phenomena in porous materials"

12.40 **Dr Davy Sinnaeve**, Ghent University

"Simultaneous solvent and J-modulation suppression in PFGSTE diffusion measurements"

12.45 **Lunch**

13.30 **Poster and Exhibitor viewing**

Exhibitors: Bruker, GPE, Jeol, Magritek and Mestrelab

Session Two *Chair: Dr Joshua Bray, University of Birmingham*

14.30 **Dr Carmine D'Agostino**, University of Cambridge

"Molecular diffusion in macro, meso and microporous materials: a tortuous tale of PFG-NMR"

15.05 **Prof Peter Griffiths**, University of Greenwich

"Self-diffusion measurements - a sensitive and versatile technique to quantify structure and interactions in soft matter"

15.40 **Prof Gareth Morris**, University of Manchester

"*DOSY: progress and pitfalls"*

16.15 **Close**

16.25 **Coffee**/**Tea**

Posters and Quickfire Talks
Diffusion NMR as a tool for characterising chaperone substrate complexes. Henrik Müller, Olga Tkachenko, Anna van der Zalm, Georg K.A. Hochberg, Andrew J. Baldwin
Broadband DOSY. Jane Power, Mohammadali Foroozandeh, Ralph Adams, Mathias Nilsson, Steven Coombes, Andrew R. Philips, Gareth A. Morris
NMR Techniques for Measuring Transport Phenomena in Porous Materials. Mohamed Ainte, L.F. Gladden, M.D. Mantle, A.P.E York
Real-space imaging of macroscopic diffusion and slow flow by singlet tagging MRI. Giuseppe Pileio
Simultaneous solvent and J-modulation suppression in PFGSTE diffusion measurements. Davy Sinnaeve
Posters
Diffusion Ordered Spectra of Solvent-permeable Molecules. Edward G. B. Eden, Dave J. Adams, Andrew I. Cooper
NMR Study of Ionic Diffusion and Charge Storage in Ionic Liquids. Alexander C. Forse, John M. Griffin, Céline Merlet, Paul M. Bayley, Hao Wang, Daniel Weingarth, Volker Presser, Yury Gogotsi, Patrice Simon, Clare P. Grey
Conformational Determination of Conformationally Biased Homologated Alkanes. J.R Bame, M. Burns, S. Essafi, S.P. Bull, C.P. Butts, J.N. Harvey, V.K. Aggarwal
Monitoring carbonate dissolution using nuclear magnetic resonance imaging and spectroscopy. Adam A. Colbourne, Andrew J. Sederman, Mick D. Mantle, Lynn F. Gladden
The Use of DoSy and other Dynamic NMR Techniques to Investigate Urea-Based "Molecular Clip" Receptors that Display Rotameric Behaviour. (Part 1) Brian A. Murray, Bernie Creaven, Zenefar Yeasmin
The Use of DoSy and other Dynamic NMR Techniques to Investigate Urea-Based "Molecular Clip" Receptors that Display Rotameric Behaviour. (Part 2) Brian A. Murray, Bernie Creaven, Zenefar Yeasmin
Self-Diffusion NMR of Foams. Kieron Smith, Eric Hughes
Increasing the range of application of size exclusion chromatographic NMR. Guillermo Lucena Acalde, Iain J. Day
Are small heat shock proteins holdases? Dissecting the chaperone function of αB-crystallin by NMR. Olga Tkachenko, Georg K. A. Hochberg, Justin L. P. Benesch, Andrew J. Baldwin

Study of the Molecular Interactions of Ionic Liquid Colloidal Suspensions Using Rheometry and NMR. Catherine F. Smith, Melanie M. Britton
Using Triaxial Gradient Probes in DOSY. Peter Kiraly, Iain Swan
Using NMR to Investigate Gd(III)-Coiled Coil Imaging Agents. Matthew R. Berwick, Melanie M. Britton, Anna F.A. Peacock
NMR and Molecular Dynamics Study of CTAB Reverse Micelles. Amanda. J. Mills, John Wilkie, Melanie. M. Britton

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