

The 34th MOOT NMR Symposium

McMaster University

14-15 OCT 2023

Conference Schedule

Saturday, 14 OCT 2023: MDCL Building

8:15 – 9:00 Registration and Coffee/Pastries

9:00 – 9:10 Opening Remarks

Session A (Chair, Giuseppe Melacini), MDCL-1105

9:10 – 9:55 Plenary Lecture: Exploring conformational dynamics of the p97 molecular machine using solution NMR spectroscopy, **Rui Huang**, *University of Guelph*

9:55 – 10:15 1. Impact of Functional Groups on Lithium Salt Dispersion and Mobility in Polymer Electrolytes, **Gabrielle Foran**, *Université de Montréal*

10:15 – 10:35 9. Introducing Oxygen-17 labels onto amino acid side chains: L-serine and L-threonine, **Yuying Huang**, *Queen's University*

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Session B (Chair, Tara Sprules), MDCL-1105

10:55 – 11:15 2. Exploring host-guest interactions within a 600 kDa DegP protease cage complex by hydrodynamics and methyl-TROSY NMR, **Robert Harkness**, *University of Toronto*

11:15 – 11:35 5. Structure elucidation of bioactive compounds from Natura Health Products (NHP) using NMR Spectroscopy -A rapid authentication tool for quality assurance, **Vinayagam Varathan**, *University of Guelph*

11:35 – 11:55 13. Unravelling the local environments of halogen ions in MOFs with ³⁵Cl and ¹²⁷I solid-state NMR spectroscopy, **Wanli Zhang**, *Western University*

LUNCH: 12:00 – 13:30

Session C (Chair, Martine Monette), MDCL-1105

- 13:30 – 14:15 Plenary Lecture: Solid-State NMR Spectroscopy of the Periodic Table Enabled by Sensitivity-Enhanced Methods, **Aaron Rossini**, *Iowa State University*
- 14:15 – 14:35 12. Elucidating the activation mechanism of caspase-9 on the apoptosome using methyl-TROSY NMR, **Alexander Sever**, *University of Toronto*
- 14:35 – 14:55 17. Characterization of Conformational States of the Homodimeric Enzyme Fluoroacetate Dehalogenase by ^{19}F - ^{13}C Two-Dimensional NMR, **Motasem Suleiman**, *University of Toronto (UTM)*

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Session D (Chair, Kevin Sanders), MDCL-1105

- 15:15 – 15:35 15. Early-Onset Parkinson Mutation Remodels Monomer - Fibril Interactions to Allosterically Amplify Synuclein's Amyloid Cascade, **Jinfeng Huang**, *McMaster University*
- 15:35 – 15:55 19. QUADRUPOLE-CENTRAL-TRANSITION NMR SPECTROSCOPY OF ALKALI METAL IONS, **Ziyao Peng**, *Queen's University*
- 15:55 – 16:15 34. Identifying the structural arrangement of co-factor p47 upon interaction with the AAA+ enzyme p97 using Paramagnetic Relaxation Enhancement NMR Spectroscopy, **Megan Black**, *University of Guelph*

Poster Session: 16:00 – 17:45

Banquet at the Buttery (ticket required)

Sunday, 15 OCT 2023: MDCL Building

8:30 – 9:10 Coffee/Pastries

Session E (Chair, Gillian Goward), MDCL-1105

- 9:10 – 9:55 Plenary Lecture: MR and MRI in the time domain with unusual magnets, **Bruce Balcom**, *University of New Brunswick*
- 9:55 – 10:15 29. Magic Angle Spinning Solid-State NMR Structural Study of a Light-Activated Potassium Channelrhodopsin, **Rajivan Raseekan**, *University of Guelph*
- 10:15 – 10:35 24. NMR Investigations of the Structural Role of Phosphorus in Aluminosilicate Glasses for Ion Exchange, **Zachary Booth**, *The Ohio State University*

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Session F (Chair, Rashik Ahmed), MDCL-1105

- 10:55 – 11:15 6. Flower species ingredient authentication using NMR methods, **Thirugnanasambandam Arunachalam**, *University of Guelph*
- 11:15 – 11:35 16. Operando NMR studies of diverse battery systems, **Kevin J. Sanders**, *McMaster University*
- 11:35 – 11:55 22. A Solid-State ^{13}C and ^{31}P NMR study of Metal Organic Framework Pesticide Complexes, **Chris Kirby**, *Agriculture and Agri-Food Canada*

Student Awards

Closing Remarks

<Box Lunches>