



Message from the Editor

Dear Colleagues,

As many of you already know, our National NMR Facility is on a mission to create a Canadian National Solid-State NMR Network. The main objectives of this initiative are:

- to maintain a web-based information resource with the most recent information about Solid-State NMR facilities across Canada
- to facilitate transfer of knowledge and expertise between network members at regularly organized workshops and symposia, and via a news bulletin
- to foster and stimulate co-operation and partnership among network members, including joint grant applications
- to advance and promote Solid-State NMR among non-specialists, potential industrial users, and the general public

This project was officially launched in spring, 2007 with unveiling the "Solid-State NMR in Canada" web resource:

http://nmr900.ca/solidstate_e.html

We are now entering the second phase of this project by presenting here a quarterly news bulletin "Solid-State NMR in Canada".

Ironically, by embracing Google, we are often losing touch with our closest neighbours or colleagues in the office across the hall. In an effort to improve broken communication links we have decided to revitalize the well-forgotten tradition of printed news bulletins. We do encourage you to print out this PDF file!

This bulletin should be seen as a communication vehicle, and we offer our resources as a National Facility to keep this

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vehicle running on your behalf. It is now up to you to decide if this is a worthy undertaking. Please let us know if you have any suggestions or ideas about this project. If you would like to use this bulletin to get your message out, consider submitting your contributions to the winter issue of this bulletin due in mid-February, and to other issues to follow.

Besides being distributed through E-mail, this and future issues of the bulletin will also be posted online at:

http://nmr900.ca/ssnmr_bulletin.html

Although our current priorities are with the Solid-State NMR community, should be there any demand, we are more than willing to embrace the "softer" side of NMR as well ☺

Sincerely,

Victor Terskikh

on behalf of the 900 NMR Facility Steering Committee

Canadian NMR news

Please forward us any news of interest to the Canadian NMR community.

Fifty years of magnetic resonance at McMaster University

In 2008 we will be celebrating fifty years of magnetic resonance at McMaster University. To commemorate the event, we are in the process of compiling photographs and images of old NMR spectrometers, manuals, equipment and data. If any of you have any such archival material that you'd like to donate, please send me an email.

Ideally I would like to receive these images in electronic format (that way you can keep the originals), but if you would like to send the originals, then we can talk about how best to send them.

Bob Berno
Manager, McMaster NMR Facility

<http://www.chemistry.mcmaster.ca/facilities/nmr/index.html>

MOOT XX

The 20th Annual MOOT NMR Minisymposium (MOOT XX) was organized this year by Merck Frosst Canada Ltd. at the Hôtel Le Chanteclerc in the scenic Laurentians north of Montreal on September the 29th and 30th, 2007. Photos from this gathering are posted on the official MOOT web-site at

www.mootnmr.org

Next year's MOOT will be held in Windsor, ON.

New Solids NMR Spectrometer for the University of Ottawa

Cheers and congratulations to our NMR colleagues from the University of Ottawa, and particularly to David Bryce. His recent proposal to CFI for a new solid-state NMR spectrometer and console has been successful. The new mid-field wide-bore instrument is scheduled to be up and running in 2008.

<http://www.science.uottawa.ca/~dbryc159/>

NMR blogs

Solid-State NMR Literature Blog (Rob Schurko's lab)

<http://ssnmr.blogspot.com/>

University of Ottawa NMR Facility Blog

<http://u-of-o-nmr-facility.blogspot.com/>

University of Toronto NMR Facility Blog

<http://www.chem.utoronto.ca/facilities/nmr/NMRBlog/>

NMR software blog (ACD Labs)

http://acdlabs.typepad.com/my_weblog/

NMR tubes blog (Norell)

<http://www.nmrtubes.com/blog/nmrblog.html>

Prizes and Awards

Michèle Auger (Université Laval) received the Clara Benson Award at the 2007 CSC Conference in Winnipeg. The Clara Benson Award is presented by the Chemical Institute of Canada in recognition of a distinguished contribution to chemistry by a woman while working in Canada and is sponsored by the Council of Canadian University Chemistry Chairs. Prof. Auger presented the award lecture entitled "Deciphering the Secrets of Novel Antimicrobial Agents and Spider Silk: A Solid-State NMR Investigation".

Bryan Demko (University of Alberta) was awarded the prestigious "Laura Marinelli Award" at the 49th Rocky Mountain Conference on Analytical Chemistry in Breckenridge in July 2007 for a poster presentation on "A Solid-State NMR Investigation of Single-Source Precursors for Group 12 Metal Selenides".

NMR Theses Recently Defended

Congratulate your students here!

Upcoming Events

Let everyone know about upcoming NMR-related events at your University or Lab. NMR conference announcements are also welcome.

2008 Rocky Mountain Conference

The 50th Annual Rocky Mountain Conference on Analytical Chemistry (and 31st Annual Solid-State NMR meeting) will be held in beautiful Breckenridge, Colorado, USA at the Beaver Run Resort and Conference Center, from July 27-31, 2008. Among the invited speakers are Gillian Goward (McMaster), Rod Wasylishen (Alberta) and Josef Zwanziger (Dalhousie). Rob Schurko (Windsor) is on the Scientific Committee organizing the 2008 conference and is also the webmaster. You may see his designs at <http://www.rockychem.com/ssnmr/>

EUROMAR-2008

EUROMAR-2008 Congress will be held in St. Petersburg, Russia, on July 6-11, 2008.

We encourage you to visit the Congress Web pages <http://www.euromar2008.com> and submit your abstracts before January 10, 2008 for either oral or poster presentations in one of the following topics:

- Bio-Macromolecules in Liquids
- Drug Discovery
- Relaxation
- Frontiers
- Molecular Dynamics and other Computational Aspects
- Metabolomics
- Applications in Catalysis
- Imaging
- Enhanced Magnetic Resonance
- Spin Dynamics & Multinuclear NMR in Solids
- Solid-state NMR methods and Biosolids
- Paramagnetic Systems
- Polymers and Solid State Physics

The satellite meeting "AMPERE Summer School" will take place just before the Congress, on July 4-5, 2008.

We look forward to meeting many of you in St. Petersburg next summer!

Sincerely yours,

EUROMAR-2008 Organizing Committee

the 900 Facility News

2006-2007 Annual Report

The 2006-2007 Annual Report for the National Ultrahigh-Field NMR Facility for Solids is now available for download at http://nmr900.ca/annual_e.html

We would like to take this opportunity to thank those who contributed to this report, as well as our partners and funding agencies for their continuing support of the 900 project.

We will start distributing printed copies by mail shortly. If you did not receive our printed report last year and would like to reserve a copy this time, please forward your mailing address to the Facility manager.

Travel support program for students and young scientists

The 900 Steering Committee is very glad to announce a travel support program for researchers visiting the 900 Facility. Starting in October students and young scientists from Canadian Universities may apply for a travel stipend towards full or partial reimbursement of their travel expenses. All requests should be submitted by a supervisor in advance of the trip and include a cost estimate. Requests should be forwarded to the Facility manager for review and approval by the Steering Committee.

http://nmr900.ca/policies_e.html

Updated user policies

Please take note that the 900 NMR user policies have been revised. Use only this latest version for your reference.

http://nmr900.ca/policies_e.html

New NMR books

Disclaimer: For your information only. In this bulletin we are not endorsing any products or services.

NMR Spectroscopy Explained: Simplified Theory, Applications and Examples for Organic Chemistry and Structural Biology

Author: Neil E. Jacobsen
Hardcover: 688 pages
Publisher: Wiley, 1st edition (Aug 13 2007)
ISBN-10: 0471730963
ISBN-13: 978-0471730965

See Table of Contents under "Search Inside":
<http://www.amazon.ca/gp/product/0471730963>

NMR Jobs and Vacancies

You are welcome to post here your vacancies, openings, and related announcements. We may also post short "job wanted" requests.

Canadian NMR Jobs
http://nmr900.ca/ssnmr_jobs.html

NMR jobs on the NMR Information Server
<http://www.spincore.com/nmrjobs/>

List of NMR jobs and Post-Doc positions maintained by Dror Warschawski (www.ibpc.fr)
<http://apex.ibpc.fr/wws/arc/nmr>

NMR jobs on SpectroscopyNow.com
<http://www.spectroscopynow.com/coi/cda/list.cda?type=Job&chId=0>

Solid-State NMR Publications

You are welcome to submit here your recent publications, or publications you think may be interesting for general NMR audience. Also welcome are essays and short reviews on a subject of your choice.

This time we are presenting 2007 solid-state NMR publications by Canadian research groups as they appear on the www.nmr900.ca website. Although we are doing our best keeping track of your publications, this list should not be considered complete.

Publications featuring results from the 900 NMR Facility

R.P. Chapman and D.L. Bryce, "A High-Field Solid-State ^{35,37}Cl NMR and Quantum Chemical Investigation of the Chlorine Quadrupolar and Chemical Shift Tensors in Amino Acid Hydrochlorides," *Physical Chemistry Chemical Physics* (2007), in press.
<http://dx.doi.org/10.1039/b712688c>

J.A. Tang, B.D. Ellis, T.H. Warren, J.V. Hanna, C.L. B. Macdonald, and R.W. Schurko, "Solid-State ⁶³Cu and ⁶⁵Cu NMR Spectroscopy of Inorganic and Organometallic Copper(I) Complexes," *Journal of the American Chemical Society* **129** (2007) 13049-13065.
<http://dx.doi.org/10.1021/ja073238x>

G. Wu, "Solid-State ¹⁷O NMR Studies of Organic and Biological Molecules," *Progress in Nuclear Magnetic Resonance Spectroscopy* (2008). (**review article**)
<http://dx.doi.org/10.1016/j.pnmrs.2007.07.004>

V.K. Michaelis, P.M. Aguiar and S. Kroeker, "Probing alkali coordination environments in alkali borate glasses by multinuclear magnetic resonance," *Journal of Non-Crystalline Solids* **353** (2007) 2582-2590.
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G.D. Enright, V.V. Terskikh, D.H. Brouwer and J.A. Ripmeester, "The structure of two anhydrous polymorphs of caffeine from single crystal diffraction and high field solid-state ¹³C NMR," *Crystal Growth and Design* **8** (2007) 1406-1410. (**cover article**)
<http://dx.doi.org/10.1021/cq070291o>

K.J. Ooms, V.V. Terskikh and R.E. Wasylshen, "Ultra-high-field solid-state ⁵⁹Co NMR studies of Co(C₂B₉H₁₁)²⁻ and Co(C₅H₅)²⁺ salts," *Journal of the American Chemical Society* **129** (2007) 6704-6705.
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A.Y.H. Lo, V. Sudarsan, S. Sivakumar, F. van Veggel, and R. W. Schurko, "Multinuclear Solid-State NMR Spectroscopy of Doped Lanthanum Fluoride Nanoparticles," *Journal of the American Chemical Society* **129** (2007) 4687-4700.
<http://dx.doi.org/10.1021/ja068604b>

K.W. Feindel, K.J. Ooms, and R.E. Wasylshen, "A solid-state ^{55}Mn NMR spectroscopy and DFT investigation of manganese pentacarbonyl compounds," *Physical Chemistry Chemical Physics* **9** (2007) 1226-1238. (cover article)
<http://dx.doi.org/10.1039/b616821c>

D.L. Bryce and E.B. Bultz, "Alkaline Earth Chloride Hydrates: $^{35/37}\text{Cl}$ Chlorine Quadrupolar and Chemical Shift Tensors by Solid-State NMR Spectroscopy and Plane Wave Pseudopotential Calculations," *Chemistry - A European Journal* **13** (2007) 4786-4796.
<http://dx.doi.org/10.1002/chem.200700056>

I.C. M. Kwan, X. Mo, and G. Wu, "Probing Hydrogen Bonding and Ion-Carbonyl Interactions by Solid-State ^{17}O NMR Spectroscopy: G-Ribbon and G-Quartet," *Journal of the American Chemical Society* **129** (2007) 2398-2407.
<http://dx.doi.org/10.1021/ja067991m>

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McGill University

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<http://dx.doi.org/10.1016/j.carres.2007.04.014>

Université Laval

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<http://dx.doi.org/10.1021/bi0620151>

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<http://dx.doi.org/10.1016/j.chemphyslip.2007.01.002>

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Université de Montréal

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National Research Council Canada

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S. Pawsey, I. Moudrakovski, J. Ripmeester, L.Q. Wang, G.J. Exarhos, J.L.C. Rowsell, O.M. Yaghi, "Hyperpolarized ^{129}Xe Nuclear Magnetic Resonance Studies of Isorecticular Metal-Organic Frameworks" *Journal of Physical Chemistry C* **111** (2007) 6060-6067.
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Queen's University

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University of Guelph

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University of Toronto

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