

JOHN KATSARAS Curriculum Vitae

Citizenship Canadian
Address Shull Wollan Center – a Joint Institute for Neutron Sciences
Oak Ridge National Laboratory
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Web Site <https://neutrons.ornl.gov/biomembranes>

CURRENT APPOINTMENT

Senior Scientist Biological Systems / ORNL Distinguished R&D Staff, Neutron Sciences
Directorate, Oak Ridge National Laboratory, Oak Ridge, TN, United States. – October 11, 2010

EDUCATION

Institution and Location	Degree	MM/YY	Field of Study
Concordia University, Montreal, QC, Canada	BA	11/81	Psychology
Concordia University, Montreal, QC, Canada	BSc	11/84	Biology
University of Guelph, Guelph, ON, Canada	MSc	10/86	Biophysics
University of Guelph, Guelph, ON, Canada	PhD	06/91	Biophysics

FELLOWSHIPS AND TRAINING

Institution and Location		Duration	Discipline
University of Guelph, Guelph, ON, Canada	Postdoctoral Fellow	01/08/91 – 08/31/91	Membrane Biophysics
McMaster University, Hamilton, ON, Canada	NSERC Postdoctoral Fellow	10/15/91 – 01/31/93	Membrane Biophysics
CRPP-CNRS, Pessac, France	Poste Rouge Fellow	02/01/93 – 08/31/94	Membrane Biophysics
Université Bordeaux 1, Pessac, France	Maître de Conference	06/01/94 – 07/31/94	Membrane Biophysics

PREVIOUS APPOINTMENTS

- Principal Research Officer, Canadian Neutron Beam Centre, NRC, Chalk River, ON, Canada – July 1, 2009 - October 10, 2010
- Science Group Leader, Canadian Neutron Beam Centre, NRC, Chalk River, ON, Canada – May 4, 2006 - May 7, 2010
- Senior Research Officer, Neutron Program for Materials Research, NRC, Chalk River, ON, Canada – July 1, 2000 - June 30, 2009
- Associate Research Officer, Neutron Program for Materials Research, NRC, Chalk River, ON, Canada – July 1, 1997 - June 30, 2000
- Assistant Research Officer, Neutron Program for Materials Research, NRC, Chalk River, ON, Canada – April 1, 1997 - June 30, 1997
- Research Associate, Neutron and Condensed Matter Science, Atomic Energy of Canada Limited, Chalk River, On, Canada – September 19, 1994 - March 31, 1997

SECONDARY APPOINTMENTS

- Faculty, Bredesen Center for Interdisciplinary Research and Graduate Education, University of Tennessee, Knoxville, TN, United States. – August 28, 2015 – Present
- Affiliated Faculty, Institute of Biomedical Engineering, University of Tennessee, Knoxville, TN, United States. – September 16, 2013 – Present
- Joint Faculty Professor, Department of Physics and Astronomy, University of Tennessee, Knoxville, TN, United States. – July 1, 2013 – Present
- Adjunct Professor, Department of Physics and Astronomy, University of Tennessee, Knoxville, TN, United States. – June 1, 2011 - June 30, 2013
- Adjunct Professor, Department of Physics, Brock University St. Catharines, ON, Canada – July 1, 2006 – Present
- Associate Member, Biophysics Interdepartmental Group, University of Guelph, Guelph, ON, Canada – November 2000 - November 2004
- Associate Member, Guelph-Waterloo Physics Institute. ON, Canada – February 1995 - February 1999

HONORS / AWARDS

- NRC/Steacie Institute for Molecular Sciences: Annual Award for Improving Life in the Institute, Canada (2007)
- NRC/Steacie Institute for Molecular Sciences: Outstanding Achievement Award, Canada (2001)
- NRC/Steacie Institute for Molecular Sciences: Outstanding Achievement Award, Canada (1999)
- Centre National de la Recherche Scientifique (CNRS), Poste Rouge Fellowship, France (1993 - 94)
- Natural Sciences and Engineering Research Council of Canada, Post-doctoral Fellowship, Canada (1992 – 94)
- Ontario Graduate Scholarship, Ontario Ministry of Training, Colleges and Universities, ON, Canada (1987 – 88; 1989 – 90)
- Physical Sciences Graduate Scholarship, College of Physical and Engineering Science, University of Guelph, ON, Canada (1986 – 87; 1988 – 89)

NATIONAL / INTERNATIONAL ADVISORY COMMITTEES

- American Physical Society, Workshop on “Scientific Challenges to Elimination of HEU in Civilian Research Reactors”. – Expert Speaker (April 3, 2017)
- Heinz Maier-Leibnitz Zentrum (MLZ) Conference on Neutrons for Health – Advisory Committee Member (January – June 2017)
- Atomic Energy of Canada Limited, 3rd International Technical Meeting on Small Reactors, Application of Research Reactors and Small Modular Reactors – Technical Meeting Advisory Committee (November 5 – 7, 2014)
- Oak Ridge National Laboratory, Biomedical Science and Engineering Center – Program Committee Member (May 6 – 8, 2014)
- NSSA (Neutron Scattering Society of America) – Selection Committee for the Science Prize and for the Sustained Research Prize (2014)
- NCNR (NIST Center for Neutron Research) – User Group Executive Committee (2010 – 2014)
- Department of Energy (DOE) – Reviewer of SNS Instruments Next Generation (SING) and SING-II Projects (Dec. 9 - 11, 2008; Dec. 8 - 10, 2009)
- ORNL Neutron Sciences Directorate, Science Review Committee (SRC) – (2007 – 2009); Chair of Reflectometry Subcommittee (2010)
- National Research Council of Canada, Steacie Institute for Molecular Sciences – Strategic Planning Group (2004 - 2005)
- NSERC Special Research Opportunity (SRO) Program; SRO College of Reviewers (2003 – Present)
- Biophysical Society of Canada; Councilor (2002 - 2013)
- Joint Institute for Neutron Sciences, Neutron Scattering for ChemBio/SENSE Workshops, Tallahassee, FL, United States.; Panel Member (2003)
- Joint Institute for Neutron Sciences, Oak Ridge, TN, United States. Structural Biology Task Force (2002 - 2003)
- 7th Neutron Scattering Summer School, Chalk River, ON, Canada – Program Chair (2002)
- Canadian Association of Physicists, Division of Medical and Biological Physics – Past Chair (2001 - 2002)
- Canadian Association of Physicists, Division of Medical and Biological Physics – Chair (1999 - 2001)
- 6th Neutron Scattering Summer School, Chalk River, ON, Canada – Program Chair (2000)
- NSERC Interdisciplinary Grant Selection Committee, GSC-21 (1999 - 2002)
- Division of Medical and Biological Physics, Canadian Association of Physicists – Vice-Chair (1998 – 1999)
- M.Sc. Supervisory and Examining Committee for Jeremy S. Pencer, Department of Physics, University of Guelph, Guelph, ON, Canada (1995 - 1997)

NATIONAL / INTERNATIONAL ORGANIZATION / CHAIRS

- Workshop on Inhomogeneous Membranes, Shull Wollan Center, Oak Ridge, TN, United States – Co-organizer (September 13, - 15, 2017)
- American Conference on Neutron Scattering, Long Beach, CA, United States – Tutorial Session “Neutrons in Biology” – Organizer (July 10 – 14, 2016)
- American Chemical Society, 251th ACS National Meeting and Exposition, San Diego, CA, United States – Platform Sessions: Biomembranes Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair (March 13 - 17, 2016)
- American Chemical Society, 250th ACS National Meeting and Exposition, Boston, MA, United States – Platform Session: Metrology of Characterization, Simulation and Theory of Biomembranes -- Co-organizer (August 16 - 20, 2015)
- Atomic Energy of Canada Limited, 3rd International Technical Meeting on Small Reactors, Ottawa, ON, Canada – Application of Research Reactors and Small Modular Reactors: Applications of Thermal and Cold Neutrons – Organizer/Chair (November 5 – 7, 2014)

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- International Workshop on Biomembranes: From Fundamentals to Applications Research, CSC IT Center for Science, Espoo, Finland – Session Chair (August 19 – 22, 2014)
- Workshop on Biomembranes Research, Oak Ridge National Laboratory, Oak Ridge, TN, United States – Co-organizer (July 8 – 9, 2014)
- American Conference on Neutron Scattering (ACNS), Knoxville, TN, United States – Biology Programming Sub-Committee. (June 1 – 5, 2014)
- Workshop on Biomembranes, Oak Ridge National Laboratory, Oak Ridge, TN, United States – Organizer (February 24, 2014)
- American Chemical Society (ACS) Spring/Fall Meeting, New Orleans, LA, United States – Co-organizer (P. Butler, NIST): Liposomes, Lipid Bilayers and Model Membranes: From Basic Research to Application. (April 7-11, 2013)
- 2nd Annual Neutron Scattering for Novices Workshop, Joint Institute for Neutron Sciences, Oak Ridge, TN, United States – Round Table Discussion Moderator. (May 16, 2012)
- Institut Laue-Langevin (ILL), Neutrons in Biology and Biotechnology, Grenoble, France – Member of Organizing Committee (October 19 - 20, 2011)
- American Conference on Neutron Scattering (ACNS), Ottawa, ON, Canada – Organizing Committee Chair. (June 26 - 30, 2010)
- International Conference on Neutron Scattering (ICNS), Knoxville, TN, United States – Member of the Program Committee for Biological Sciences (May 3 - 7, 2010)
- American Conference on Neutron Scattering (ACNS), Santa Fe, NM, United States – Member of the Program Committee for Membrane Biology (May 12 - 15, 2008)
- Canadian Association of Physicists (CAP), Saskatoon, SK, Canada – Platform Session: Soft Matter II – Chair (June 17 - 20, 2007)
- American Conference on Neutron Scattering (ACNS), St. Charles, IL, United States – Member of the Program Committee for Soft Matter (June 18 - 22, 2006)
- Frontiers of Synchrotron X-ray Scattering: A Symposium and Workshop Exploring New Directions in X-ray Scattering for Canada, Hamilton, ON, Canada – Organizing Committee (December 3 - 4, 2004)
- American Physical Society (APS) Annual Meeting, Montreal, QC, Canada – Platform Session: Neutron Scattering and other Studies of Phospholipids – Organizer/Chair (March 22 - 26, 2004)
- Biophysical Society 47th Annual Meeting, San Antonio, TX, United States – Platform Session: Biotechnology and Bioengineering – Co-chair (March 1 – 5, 2003)
- Canadian Association of Physicists (CAP), Quebec City, QC, Canada – Platform Session: Biomaterials – Chair (June 2 – 5, 2002)
- Biophysical Society 46th Annual Meeting, San Francisco, CA, United States. – Platform Session: Membrane Structure – Co-chair (February 23 - 27, 2002)
- Canadian Association of Physicists (CAP), Victoria, BC, Canada – Plenary Session: 3D Radiation Dosimetry Using Polymer Gels – Bioinformatics, Genomics and Proteomics – Chair; Platform Session: Atomic Force Microscopy and Biology; Organizer/Chair of session: Young Investigators in Biological and Medical Physics – Organizer/Chair (June 17 - 20, 2001)
- Biophysical Society 45th Annual Meeting, Boston, MA, United States. – Platform Sessions: Physics and Structural Biology of Monolayers, Bilayers and Proteins - Physical Phenomena and Methods; and Biological Relevance; Protein - Lipid Interactions – Co-organizer/Co-chair (February 17 - 21, 2001)
- Canadian Association of Physicists (CAP), Toronto, ON, Canada – Platform Session: Biophysics II – Organizer/Chair (June 4 – 7, 2000)
- Biophysical Society 44th Annual Meeting, New Orleans, LA, United States – Platform Session: Phospholipid Membrane Structure – Co-chair of (February 12 - 16, 2000)
- Canadian Association of Physicists (CAP), Fredericton, NB, Canada – Platform Session: Biophysics II – Organizer/Chair (June 6 - 9, 1999)
- Xerox Research Centre, Mississauga, ON, Canada – Workshop: Polymers and Biologically Relevant Materials: The Role and Requirements of the Canadian Neutron Facility – Co-organizer/Co-chair (November 1 - 2, 1998)
- Canadian Association of Physicists (CAP), Waterloo, ON, Canada – Platform Session: Biologically Relevant Model Membranes – Organizer/Chair (June 14 – 17, 1998)

- Biophysical Society 42nd Annual Meeting, Kansas City, MO, United States – Platform Session: Structural Arrangements of Lipids and Biological Function I and II – Co-Organizer/Co-Chair (February 22 - 26, 1998)

JOURNAL EDITORIAL BOARDS

- Chemistry and Physics of Lipids – Associate Editor (January 1, 2018 - Present)
- Membranes – Editorial Board Member (October 2015 – Present)
- Chemistry and Physics of Lipids – Editorial Advisory Board Member (August 2011 – December 31, 2017)

PEOPLE

POST-DOCTORAL FELLOWS

- Bolmatov, D. – Department of Physics, University of Tennessee, Knoxville, TN, United States
August 1, 2017 – Present
- Marquardt, D. – Department of Physics, University of Tennessee, Knoxville, TN, United States
January 1, 2017 – June 30, 2017
Current Position: Assistant Professor, University of Windsor, Windsor, ON, Canada.
- Nickels, J. D. – Department of Physics, University of Tennessee, Knoxville, TN, United States
September 1, 2013 – July 31, 2017
Current Position: Assistant Professor, University of Cincinnati, Cincinnati, OH, United States
- Pan, J. – Oak Ridge Associated Universities (ORAU) Fellow. May 8, 2011 – August 2, 2013
Current Position: Assistant Professor, University of South Florida, Tampa Bay, FL, United States.
- Heberle, F. A. – Oak Ridge Associated Universities (ORAU) Fellow. January 2, 2011 – October 15, 2015
Current Position: Research Scientist, Bredesen Center, University of Tennessee, Knoxville, TN, United States
- Kučerka, N. – NSERC Visiting Fellow. April 1, 2006 - March 31, 2008
Current Position: Deputy Director of Science, Frank Laboratory of Neutron Physics, Dubna, Russia
- Abraham, T. – NSERC Visiting Fellow. August 1, 2005 - September 25, 2006
Current Position: Director, Microscopy Imaging Core Facility, Penn State College of Medicine, Hershey, PA, United States
- Pencer, J. S. – NSERC Visiting Fellow. September 1, 2004 - June 4, 2007
Current Position: Reactor Physicist, Atomic Energy of Canada Limited, Chalk River, ON, Canada
- Chakrapani, M. – NSERC Visiting Fellow. Jan. 15, 2003 - January 1, 2005 (Co-Supervisor Linda J. Johnston, NRC/SIMS)
Current Position: Associate, Borden Ladner Gervais LLP, Ottawa, ON, Canada
- Harroun, T. A. – NSERC Visiting Fellow. Sept. 15, 2002 - April 30, 2005; Research Associate, University of Guelph. May 1, 2005 - Dec. 31, 2005
Current Position: Associate Professor, Brock University, St. Catharines, ON, Canada
- Nieh, M.-P. – NSERC Visiting Fellow. Oct. 18, 2001 - March 31, 2004; Research Associate, University of Guelph. April 1, 2004 - Jan. 3, 2005
Current Position: Associate Professor, University of Connecticut, Storrs, CT, United States.
- Pabst, G. A. – Erwin Schrödinger Post-Doctoral Fellow. Feb. 1, 2001 - Jan 31. 2002; Visitor. Austrian Academy of Sciences. June 1, 2004 - Aug. 31, 2004
Current Position: Professor, University of Graz, Graz, Austria
- Mason, P. C. – NSERC Visiting Fellow. Dec. 1, 1998 - Sept. 15, 2000
Current Position: Group Leader, Network Information Operations, Secure Mobile Networking, Defence Research and Development Canada, Ottawa, ON, Canada

UNDERGRADUATE STUDENTS

- Dolinar, P. – Deep River Science Academy. Tutor. May 5 - August 28, 2009
- Marquardt, D. – Brock University. Summer Student (Supervisor T.A. Harroun). April - August, 2008
- Nicholson, E. A. – Deep River Science Academy. Tutor. May 11 – August 18, 2007; May - August, 2008
- Gocmanac M. – Deep River Science Academy. Tutor. May 2 - August 18, 2006
- Desrochers, C. M. – Deep River Science Academy. Tutor. May 5 - August 22, 2005
- de Lannoy, Ch.-F. – Deep River Science Academy. Tutor. May 5 - August 22, 2004
- Koslowsky, M. R. – Deep River Science Academy. Tutor. May 5 - August 22, 2003; National Research Council Summer Student. May 3 - August, 2004
- Weafer, V. K. – NSERC Women in Engineering and Science. May 1 - August 31, 1999

VISITING RESEARCHERS

- Weitzer, A. – University of Graz, Graz, Austria. March 1 – April 30, 2017; June 6 – August 18, 2017.
- Miti, T. – University of South Florida, Tampa Bay, FL, USA. September 8 – Present 2016
- Marquardt, D. – Brock University, St. Catharines, ON, Canada. September 24 – December 13, 2013; October 17 – December 6, 2014
- Kmetko, J. – Kenyon College, Gambier, OH, United States. June, 2012 - August, 2013
- Pabst, G. A. – Austrian Academy of Sciences, Graz, Austria. June - August, 2004
- Raghunathan, V. A. – Raman Research Institute, Bangalore, India. August - November, 2001; October, 2003 - October, 2004

PATENTS / AGREEMENTS

- Patent – NRC/Cincinnati Children's Hospital. "Spontaneously Forming Ellipsoidal Phospholipid Unilamellar Vesicles". X. Qi, M.-P. Nieh and J. Katsaras; US Provisional Patent No. 60/862,321 (October 20, 2006); US Patent No. 11/741,323 (April 27, 2007); World International Property Organization No. WO 2008/051818 A2 (May 2, 2008)
- Provisional Patent 12078-1 – NRC. "Single Domain Antibody-Targeted Carrier for Contrast Agents and Drug Delivery Agents". A. Abulrob, D. Stanimirovic, U. Iqbal, M.-P. Nieh and J. Katsaras International PCT Application PCT/CA2009/001729 entitled "Antibody-Targeted Carrier for Contrast Agents" has entered the National Phase in Canada on May 18, 2011.
- International PCT Application PCT/CA2009/001729 entitled "Antibody-Targeted Carrier for Contrast Agents" has entered the National Phase in the United States on May 20, 2011 and has been allotted United States. Patent Application No. 13/130,339.
- International PCT Application PCT/CA2009/001729 entitled "Antibody-Targeted Carrier for Contrast Agents" entered the National Phase in Europe on June 22, 2011.
- Memorandum of Understanding – NRC/MDS-Nordion. "Targeted Molecular Imaging". November 7, 2008
- Agreement for R&D Collaboration – NRC/McGill. "Development and Evaluation of Dopamine Receptor – Targeting Radiopharmaceutical Formulations and Improved Blood-Brain Barrier Permeability". 2008 – 2009
- Memorandum of Understanding – UT-Battelle, LLC/NRC. "Collaborative Opportunities Involving Neutron Scattering". June, 2012

REVIEWER

JOURNALS

Acta Crystallographica D; European Biophysics Journal; Macromolecules; Physical Review Letters; Physical Review E; Vibrational Spectroscopy; Biophysical Journal; Proceedings of the National Academy of Sciences (United States); Biochimica et Biophysica Acta; Journal of Molecular Biology; Langmuir; Chemistry and Physics of Lipids; Physics Letters A; Journal of Physical Chemistry; Physical Chemistry Chemical Physics; Journal of the American Chemical Society

ORGANIZATIONS / INSTITUTIONS

Sylvia Fedoruk Canadian Centre for Nuclear Innovation; Agence Nationale de la Recherche (France); University of Alberta; Netherlands Organization for Scientific Research; Australian Nuclear Science and Technology Organisation (ANSTO); Swiss National Science Foundation (SNSF); Centre National de la Recherche Scientifique (CNRS, France); Department of Energy (DOE, United States); Canadian Foundation for Innovation; Alberta Heritage Foundation for Medical Research; Lakehead University; The University of Western Ontario ADF; Natural Sciences and Engineering Research Council of Canada; Cornell High Energy Synchrotron Source (United States); National Institute of Standards and Technology (United States); Biotechnology and Biological Sciences Research Council (BBSRC, UK); NIH, Molecular and Cellular Biophysics Study Section (United States); Research Corporation (Cottrell Scholar Awards, United States); NordForsk – Neutron Science: International Postdoctoral Research Fellowships (Norway)

OTHER PROFESSIONAL TRAINING / CERTIFICATES

- Certified Radiological Worker II – ORNL Specific, 2011 – Present
- Certified Overhead Crane Operator: AECL (CR-U109199), April 10, 2007
- Project Management for Research Projects Workshop, Advanced Foods and Materials Network, April 19 - 20, 2004
- Group III Radiation Protection: Atomic Energy Canada Limited, 1998
- Enhanced Reliability: Canadian Government Security Rating, 1994
- Site Access Clearance: Atomic Energy of Canada Limited, Chalk River Laboratories, 1994

FUNDING / SOURCES

FY2017 - 2019

8294 – ORNL Laboratory Directed Research and Development (LDRD), Director's R&D Fund – Integrating Multimodal Optical Imaging, Analytics, Neutron Scattering and Ab Initio Calculations to Resolve Interfacial Structure and Ultrafast Dynamics. \$1.07M (PI: B. L. Doughty)

FY2016

Joint Directed Research and Development Funding (JDRD) – Determination of Protein Impact on Lipid Nanodomains with Tunable Probes. \$49,762 (PI: F. Barrera)

FY2016 - 2020

National Institutes of Health (NIH) R01 – Transmembrane Peptides for Targeting Acidosis: \$1.65 M (PI: F. Barrera and A. W. Smith)

FY2016 - 2017

8221 – ORNL Seed Money Fund, Development – Atomic Resolution of a Protein using X-ray Fluorescence Holography. \$190,000 (PI: X. T. Tong)

FY2016 - 2018

7812 – ORNL Laboratory Directed Research and Development (LDRD), Next-Generation Data, Modelling, and Simulation for Neutron Science – Observing Hidden Structure Underpinning Emergent Functionality in Mesoscale Materials. \$1.012M (PI: M. R. Fitzsimmons)

FY2015 - 2017

7394 – ORNL Laboratory Directed Research and Development (LDRD), Integrated Studies of Complex Biological Systems – Functional Domains in Model Membranes and Protocells Probed by High-Performance Simulation and Neutron Scattering. \$1.25M (PI: X. Cheng)

FY2015 - 2016

7305 – ORNL Seed Money Fund, Basic Research – Membrane Domain Formation on Nanostructured Scaffolds. \$190,000 (PI: P. Collier)

FY2014 - 2016

DOE-BER – Adaptive Biosystems Imaging: Integrative Analysis and Understanding of Cellular Communication, Organization, and Function of Plant and Microbial Systems” (Mitchel J. Doktycz – Research Manager) \$4M

FY2014 - 2016

6988 – ORNL Laboratory Directed Research and Development (LDRD), Integrated Studies of Complex Biological and Environmental Systems – Revealing the Structural Organization of Membranes in Living Cells by Small-Angle Neutron Scattering (SANS). \$814,000 (PI: J. G. Elkins)

FY2012 - 2014

6271 – ORNL Laboratory Directed Research and Development (LDRD), High Impact Science using Neutrons – New Capabilities for Neutron-Based Biomembranes Research at ORNL. \$860,000 (PI: R. F. Standaert)

FY2012 - 2013

6623 -- ORNL Seed Money Fund, General Category – Joint Neutron Scattering and Simulations towards Improved Lipid Models. \$180,000 (PI: X. Cheng)

2011 - 2014

Joint Institute for Neutron Sciences (JINS) – UT graduate student Paul Drazba. \$12,000/year

FY2011 - 2013

6233 – ORNL Laboratory Directed Research and Development (LDRD), Strategic Hire – Development of the Neutron Based Biomembranes Initiative at NScD. \$631,100

2006 - 2009

Networks of Centres of Excellence, Advanced Foods and Materials Network (AFMNet). Network Investigator: \$33,774/year

2006

Canadian Foundation for Innovation: Brockhouse X-ray Diffraction and Scattering Sector Beamline team: \$27.8M (CFI contribution: \$11,135,002)

Networks of Centres of Excellence, Advanced Foods and Materials Network (AFMNet). Project Leader: \$22,500

2005

NRC VP Minor Capital, \$173,000

Networks of Centres of Excellence, Advanced Foods and Materials Network (AFMNet). Project Leader: \$65,000

2004

Networks of Centres of Excellence, Advanced Foods and Materials Network (AFMNet). Project Leader: \$65,000 (\$22.2M total funding)

2003

University of Connecticut (UConn Health Center): X-ray diffraction facility. Replacement value ~ \$1,000,000 (USD)

OUTPUT / METRICS

Refereed Journal Publications: 147
Refereed Conference Proceedings: 14
Review Articles (refereed): 18
Books/Special Issues (Editor): 5
Book Chapters: 14
Technical Reports: 11
Invited Talks: 181 (11 Plenary/Keynote)
Conference Contributions: 145
H-Index: 42 (Web of Knowledge as of November 19, 2017)

APPENDICES

REFEREED ARTICLES

* Articles with ≥ 41 citations; † Articles with journal front cover (total of 14)

2017

1. †Perticaroli, S., G. Ehlers, C. B. Stanley, E. Mamontov, H. M. O'Neill, Q. Zhang, X. Cheng, D. A. A. Myles, **J. Katsaras** and J. D. Nickels. Description of Hydration Water in Protein (GFP) Solution. *J. Am. Chem. Soc.* **139**, 1098 - 1105 (2017).
2. †Perticaroli, S., B. Mostofian, G. Ehlers, J. C. Neufeind, S. O. Diallo, C. B. Stanley, L. Daemen, T. Egami, **J. Katsaras**, X. Cheng and J. D. Nickels. Structural Relaxation, Viscosity, and Network Connectivity in a Hydrogen Bonding Liquid. *Phys. Chem. Chem. Phys.* **19**, 25859 - 25869 (2017).
3. †Nickels, J. D., S. Chatterjee, C. B. Stanley, S. Qian, X. Cheng, D. A. A. Myles, R. F. Standaert, J. G. Elkins and **J. Katsaras**. The *In Vivo* Structure of Biological Membranes and Evidence for Lipid Domains. *PLoS Biol.* **15**, e2002214(1) - e2002214(22) (2017).
4. †Eicher, B., F. A. Heberle, D. Marquardt, M. Doktorova, T. Miti, H. L. Scott, G. N. Rechberger, **J. Katsaras** and G. Pabst. Joint Small-Angle X-ray and Neutron Scattering Data Analysis of Asymmetric Lipid Vesicles. *J. Appl. Cryst.* **50**, 419 - 429 (2017).
5. Carrillo, J.-M., **J. Katsaras**, B. Sumpter and R. Ashkar. A Computational Approach for Modeling Neutron Scattering Data from Lipid Bilayers. *J. Chem. Theory Comput.* **13**, 916 - 925 (2017).
6. †Marquardt, D., F. A. Heberle, T. Miti, B. Eicher, E. London, **J. Katsaras** and G. Pabst. ^1H NMR Shows Slow Phospholipid Flip-Flop in Gel and Fluid Bilayers. *Langmuir* **33**, 3731 - 3741 (2017).
7. Usery, R. D., T. A. Enoki, S. P. Wickramasinghe, M. D. Weiner, W.-C. Tsai, M. B. Kim, S. Wang, T. L. Torng, D. Ackerman, F. A. Heberle, **J. Katsaras**, and G. W. Feigenson. Line Tension Controls the Liquid-Disordered/Liquid-Ordered Domain Size Transition in Lipid Bilayers. *Biophys. J.* **112**, 1431-1443 (2017).
8. Kučerka, N., E. Dushanov, K. T. Kholmurodov, **J. Katsaras** and D. Uhríková. Calcium and Zinc Cations Differentially Affect the Structure of Lipid Membranes. *Langmuir* **33**, 3134 - 3141 (2017).
9. Kučerka, N., E. Dushanov, K. Kholmurodov, **J. Katsaras** and D. Uhríková. Cation-Containing Lipid Membranes – Experiment and MD Simulations. *Eur. Pharm. J.* **1**, 1 - 6 (2017)
10. Taylor, G. J., F. A. Heberle, J. Seinfeld, **J. Katsaras**, C. P. Collier and S. A. Sarles. Capacitive Detection of Low-Enthalpy, Higher Order Transitions in Synthetic and Natural Lipid Composition Membranes. *Langmuir* **33**, 10016 - 10026 (2017)
11. Doktorova, M., F. A. Heberle, R. L. Kingston, G. Khelashvili, M. A. Cuendet, Y. Wen, **J. Katsaras**, G. W. Feigenson, V. M. Vogt and R. A. Dick. Cholesterol Promotes Binding of Retroviral Matrix Protein by Indirectly Affecting Membrane Electrostatics and Solvation Properties. *Biophys. J.* (accepted)

12. Nickels, J. D., S. Chatterjee, B. Mostofian, C. B. Stanley, M. Ohl, P. Zolnierczuk, R. Schulz, D. A. A. Myles, R. F. Standaert, J. G. Elkins, X. Cheng and **J. Katsaras**. The *Bacillus subtilis* Lipid Extract, a branched-chain fatty acid model membrane. *J. Phys. Chem. Lett.* **8**, 4214 - 4217 (2017).

2016

13. Nickels, J. D., J. Atkinson, E. Papp-Szabo, C. Stanley, S. O. Diallo, S. Perticaroli, G. Ehlers, **J. Katsaras** and J. D. Dutcher. Structure and Hydration of Highly-Branched, Monodisperse Phytoglycogen Nanoparticles. *Biomacromol.* **17**, 735 - 743 (2016).
14. Tian, J., J. D. Nickels, **J. Katsaras** and X. Cheng. Behavior of Bilayer Leaflets in Asymmetric Model Membranes: Atomistic Simulation Studies. *J. Phys. Chem.* **120**, 8438 - 8448 (2016).
15. †Heberle, F. A., D. Marquardt, M. Doktorova, B. Geier, R. F. Standaert, P. Heftberger, B. Kollmitzer, J. D. Nickels, R. A. Dick, G. W. Feigenson, **J. Katsaras**, E. London and G. Pabst. Subnanometer Structure of an Asymmetric Model Membrane: Interleaflet Coupling Influences Domain Properties. *Langmuir* **32**, 5195 - 5200 (2016).
16. Naranjo, A. N., P. M. McNeely, **J. Katsaras** and A. S. Robinson. Impact of Purification Conditions and History on A_{2A} Adenosine Receptor Activity: The role of CHAPS and lipids. *Prot. Expr. Purif.* **124**, 62 - 67 (2016).
17. Xia, Y., K. Charubin, D. Marquardt, F. A. Heberle, **J. Katsaras**, J. Tian, X. Cheng, Y. Liu and M.-P. Nieh. Morphology-Induced Defects Enhance Lipid Transfer. *Langmuir* **32**, 9757 - 9764 (2016).
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2015

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11. Nickels, J. D., S. Perticaroli, C. B. Stanley, S. O. Diallo, M. Tyagi, **J. Katsaras**. Dynamics of Isotopically Asymmetric Lipid Vesicles. (*Biophys. J.*)
12. Liu, F., L. F. Collins, R. Ashkar, F. A. Heberle, B. R. Srijanto, **J. Katsaras** and C. P. Collier. Tuning the Chemical Potential of Lipid Bilayer Membranes with Microfabricated Substrates. (*Langmuir*)
13. Frampton, M. B., D. Marquardt, F. A. Heberle, R. A. Dick, J. Katsaras and P. M. Zelisko. The Structure of Self-Assembled Hybrid Siloxane-Phosphocholine Bilayers (*Soft Matter*)
14. Marquardt, D., M. D. Frontzek, F. A. Heberle, B. C. Chakoumakos and J. Katsaras. Small Angle Neutron Diffraction from Aligned Stacks of Lipid Bilayers using the Wide-Angle Neutron Diffractometer at the High Flux Isotope Reactor. (*J. Appl. Cryst.*)
15. Marquardt, D., F. A. Heberle, J. Pan, X. Cheng, G. Pabst, T. A. Harroun, N. Kučerka and J. Katsaras. The Detailed Structure of a Polyunsaturated Lipid Bilayer Determined by Joint Refinement of Neutron and X-ray Scattering Data.
16. Zhao, Y., D. Marquardt, F. A. Heberle, J. Katsaras, J. Coupland and R. Elias. Using Neutron Diffraction to Detect the Penetration Depth of Tempolipids and Phenolipids in Aligned Lipid Multibilayers.
17. Dutcher, J. R., M. Grossutti, J. Atkinson, B. Baylis, H. Shamana, E. Bergmann, J. Nickels and **J. Katsaras**. Phytoglycogen Nanoparticles: Exciting Science and Promising Technologies from Nature. *Phys. Canada*
18. Eicher, B., D. Marquardt, F. A. Heberle, I. Letofsky-Papst, G. N. Rechberger, M.-S. Appavou, **J. Katsaras** and G. Pabst. Intrinsic Curvature-Mediated Trans-Bilayer Coupling in Asymmetric Lipid Vesicles. (submitted to *Biophys. J.*)

INVITED SPEAKER

* Keynote or Plenary Speaker

2017

1. "Recent Studies of Biomembranes with Nanoscopic Domains". Department of Physics, Lakehead University, Thunder Bay, ON, Canada. November 3.
2. "The In Vivo Structure of a Biological Membrane". Gordon Research Conference on Neutron Scattering. "Structure and Dynamics of Materials on Many Length and Time Scales". Hong Kong, China. August 6 – 11.
3. "Biological Membranes and their Study by Neutron and X-Ray Scattering". The 5th Soft Matter Summer School and 24th Innovative Workshop on Bio/Soft Materials: Membranes. Korea Advanced Institute of Science and Technology, Daejeon, South Korea. July 3 – 7.
4. "Membrane Lateral Heterogeneity: from model to living membranes". 8th Neutrons in Structural Biology Workshop. Shull Wollan Center, Oak Ridge, TN, United States. June 5 – 9.
5. "Model Membranes, Bacteria and Lateral Membrane Organization". Keystone Symposium on "Lipidomics and Bioactive Lipids in Metabolism and Disease". Tahoe City, CA, United States. February 26 – March 3.

2016

6. "Model Membranes, Bacteria and Lateral Membrane Organization". Department of Molecular Physiology and Biological Physics, University of Virginia, Charlottesville, VA, United States. December 12.
7. "Cold Neutrons Used to Detect Nanoscopic Lateral Membrane Organization", University of Tennessee Medical Center, Knoxville, TN, United States. November 22.
8. "Model Membranes, Living Organisms and Lateral Membrane Organization", Brockhouse Institute for Materials Research, McMaster University, Hamilton, ON, Canada. November 14.
9. * "Neutrons "See" Nanoscopic Lipid Domains in Model Membranes and Those of Live Bacteria", 7th Annual Nano Ontario Conference on "Nanobio and Sustainability", Guelph, ON, Canada. November 10 – 11. (Keynote Speaker)
10. "Model Membranes, Living Organisms and Lateral Membrane Organization", Department of Physics, University of Guelph, Guelph, ON, Canada. November 8.
11. "Model Membranes, Living Organisms and Lateral Membrane Organization", Institute of Molecular Biology and Biochemistry, University of Waterloo, Waterloo, ON, Canada. November 4.
12. * "Model Membranes, Living Organisms and Lateral Membrane Organization", Workshop on "Synchrotron and Neutron Scattering in Biomaterials and Soft Matter". Malmö, Sweden. October 26 – 28. (Plenary Speaker)
13. "Nanoscopical Lipid Organization in Membranes", Moderna Therapeutics, Cambridge, MA, United States. October 4.
14. "Nanoscopical Lipid Organization in Model and Bacterial Membranes", Department of Chemistry and Biochemistry, Concordia University, Montreal, QC, Canada. September 16.
15. "Rutherford: The Crocodile of the Cavendish Laboratory", Department of Chemistry and Biochemistry, Concordia University, Montreal, QC, Canada. September 15.

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Web Site: <https://neutrons.ornl.gov/biomembranes>

16. "Lateral Membrane Organization in Model Systems and Live Bacteria". 5th International Symposium on Diffraction Structural Biology, Knoxville, TN, United States. August 7 – 10.
17. "Nanoscopic Lipid Domains in Model and Bacterial Membranes". American Conference on Neutron Scattering, Long Beach, CA, United States. July 10 – 14.
18. "Neutron Scattering: a useful technique for probing lateral membrane structure". Workshop on "Complexity in the Chemistry and Physics of Lipid Membranes", Telluride Science Research Center, Telluride, CO, United States. July 4 - 8.
19. * "Biomembranes Research at ORNL: in search of nanoscopic lipid domains in model and bacterial membranes". 3rd International Conference on Small Angle Neutron Scattering in Dubna. Dubna, Russia. June 6 – 9. (Keynote Speaker)
20. * "In Search of Nanoscopic Lipid Domains: neutron scattering studies of model and bacterial membranes". 2nd Annual Meeting of the Biophysical Society of Canada. Winnipeg, MB, Canada. June 1 – 3. (Keynote Speaker)
21. "Evidence for Nanoscopic Lipid Domains in Model Membranes and a Bacterium". University of Toronto, Department of Chemical and Physical Sciences, Mississauga, ON, Canada. March 8.
22. "Evidence for Nanoscopic Lipid Domains in Model Membranes and a Bacterium". University of Western Ontario, Department of Physics and Astronomy, London, ON, Canada. March 3.
23. "Evidence for Nanoscopic Lipid Domains in Model Membranes and a Bacterium". University of Calgary, Centre for Molecular Simulation and Biochemistry, Calgary, AB, Canada. February 9.

2015

24. "Nanoscopic Lipid Domains in Model Membranes and Living Bacteria". Louisiana State University, Department of Chemistry, Baton Rouge, LA, United States. December 4.
25. "Lateral Heterogeneity and Possible Differences in Hydration". XLIV Annual Meeting of the Biophysical Society of Argentina. Santiago del Estero, Argentina. November 4 – 6.
26. * "Water, Membrane Structure and Biological Significance". Workshop on "Water, Membrane Structure and Biological Significance". Santiago del Estero, Argentina. November 1 – 4. (Plenary Speaker)
27. Workshop on "Neutron Scattering on Nano-Structured Soft Matter: Synthetic and Bio-Materials". Jülich Centre for Neutron Science and Donostia International Physics Centre, Tutzing, Germany. October 5 – 8.
28. "Nanoscopic Lipid Domains in Model and Living Bacterial Membranes". University of Connecticut, Institute of Materials Science, Storrs, CT, United States. September 25.
29. * 61st Benzon Symposium on "Structural Biology on the Move". Copenhagen, Denmark. August 24 – 27, 2015. (Plenary Speaker)
30. "Nanodomains in Model and Real Biomembranes." Tulane University, Department of Chemical and Biomolecular Engineering. New Orleans, LA, United States. April 10.

31. "Biomembrane Structure using Neutron Scattering and Molecular Labeling." Workshop on "Biomembrane Synthesis, Structure, Dynamics, and Mechanics", Division of Colloid and Surface Science. 249th American Chemical Society Meeting and Exposition. Denver, CO, United States. March 22 – 26.
32. "Nanodomains in Biomembranes and their Mechanical Properties Studied by Neutron Scattering and High Performance Computing." University of Tennessee, Department of Chemical and Biomolecular Engineering, Knoxville, TN, United States. March 10.
33. "Nanoscope Domains Detected by Neutrons". Workshop on "Mechanistic Studies in Membrane Biophysics: Experiments and Theory". Telluride Science Research Center, Telluride, CO, United States. March 2 – 6.
34. "Biomembrane Structure using Neutron Scattering and Molecular Labeling." University of California, Santa Barbara, Department of Biomolecular Science and Engineering, Santa Barbara, CA, United States. January 21.
35. "Biomembrane Structure using Neutron Scattering and Molecular Labeling." University of California, Irvine, Department of Chemistry, Irvine, CA, United States. January 20.

2014

36. "The Biomembranes Program at ORNL: Resolving the Structure of Biomembranes using Neutrons, High Performance Computing and Molecular Labeling." 3rd International Technical Meeting on Small Reactors, "Application of Research Reactors and Small Modular Reactors", Ottawa, ON, Canada. November 5 – 7.
37. "Experiences of a Canadian at a US National Lab." Atomic Energy of Canada Limited, Computational Reactor Physics, Chalk River, ON, Canada. October 14.
38. "Membrane Lateral Organization and Structure." University of South Florida, Department of Physics, Tampa Bay, FL, United States. September 19.
39. "Membrane Lateral Organization and the Location of Biomolecules in Lipid Bilayers." International Workshop on Biomembranes - From Fundamentals to Applications, CSC – IT Center for Science, Helsinki/Espoo, Finland. August 19 – 22.
40. * "Neutron Scattering Studies of Model and Real Biological Membranes." Biomedical Science and Engineering Center – Annual ORNL Biomedical Science and Engineering Conference, Oak Ridge National Laboratory, Oak Ridge, TN, United States. May 6-8, 2014 – (Plenary Speaker)
41. "Self-Assembled Lipid Nanoparticles for Imaging and Drug Delivery." Translational Medicine Symposium, Oak Ridge National Laboratory, Oak Ridge, TN, United States. April 11.
42. "Neutron Scattering from Nanoscale Structures." Department of Physics and Astronomy, University of Delaware, Newark, DE, United States. April 8.
43. "Determining the In-Plane and Out-of-Plane Structures of Model Membranes: Two Recent Examples." Membrane Structure and Assembly, Biophysical Society Subgroup, San Francisco, CA, United States. February 15.

2013

44. University of Tennessee, Department of Physics and Astronomy, Knoxville, TN, United States. December 2.

45. The Iberian Membrane Physics Colloquim on “Physics Meets Biology at the Cell Membrane”, Centro de Investigación Cooperativa en Biomateriales. San Sebastian, Spain. September 20 - 21.
46. Oak Ridge National Laboratory, Materials Science and Technology Division, Physical Science Directorate, Oak Ridge, TN, United States. September 13.
47. SHUG-CNMS User Meeting, Oak Ridge, TN, United States. August 12 – 15.
48. 3rd Annual Neutron Scattering for Novices Workshop, Joint Institute for Neutron Sciences, Oak Ridge, TN, United States. June 17-18.
49. 12th Canadian Neutron Summer School, Chalk River, ON, Canada. June 2 – 7.
50. * Workshop on “Frontiers of Hybrid Medical Imaging”, University of Saskatchewan, Saskatoon, SK, Canada. May 16. (Plenary Speaker)
51. Continuing Medical Education Day – Medical Imaging, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, SK, Canada. May 15.
52. University of Tennessee, Department of Biochemistry, Cellular and Molecular Biology, Knoxville, TN, United States. May 9.
53. University of Toronto, Department of Chemistry, Toronto, ON, Canada. April 29.
54. University of Guelph, Department of Physics, Guelph, ON, Canada. April 26.
55. McMaster University, Department of Physics, Hamilton, ON, Canada. April 24.
56. Brock University, Department of Physics, St. Catharines, ON, Canada. April 23.
57. National Research Council, Canadian Neutron Beam Centre, Chalk River, ON, Canada. January 4.

2012

58. Symposium in Honor of Peter Laggner, Austrian Academy of Sciences, Institute of Biophysics and Nanosystems Research, Graz, Austria. October 19.
59. Technical University of Graz, Department of Physics, Graz, Austria. October 18.
60. Helmholtz-Zentrum Berlin, Berlin, Germany. October 16.
61. Workshop on Next Generation of Materials using Neutrons, Jawaharlal Nehru Center for Advanced Scientific Research (JNCASR), Bangalore, India. September 6 - 7.
62. Canadian Nuclear Society/Deep River Science Academy, Deep River, ON, Canada. July, 26.
63. 3rd Graduate Course on Neutron Scattering Applications in Structural Biology, Oak Ridge National Laboratory, Oak Ridge, TN, United States. June 4 - 8.
64. 2nd Annual Neutron Scattering for Novices Workshop, Joint Institute for Neutron Sciences, Oak Ridge, TN, United States. May 16.

2011

65. National Research Council, Canadian Neutron Beam Centre, Chalk River, ON, Canada. December 21.

66. * Villanova University, Sigma Pi Sigma Honor Society Lecture, Department of Physics, Villanova, PA, United States. December 2. (Keynote Speaker)
67. National Institute of Standards and Technology, Biomedical Science Division, Gaithersburg, MD, United States. November 3.
68. Rensselaer Polytechnic Institute, Chemical and Biological Engineering, Troy, NY, United States. November 1.
69. Illinois Institute of Technology, Pritzker Institute of Biomedical Science and Engineering, Chicago, IL, United States. October 28.
70. Illinois Institute of Technology, Department of Physics, Chicago, IL, United States. October 27.
71. Canadian Nuclear Society/Deep River Science Academy, Deep River, ON, Canada. July, 28.
72. 2nd Neutrons in Structural Biology Symposium, ORNL, Oak Ridge, TN, United States. May, 23.
73. 11th Canadian Neutron Summer School, Chalk River, ON, Canada. May 8 – 13.
74. Materials Research Society, Spring Meeting, San Francisco, CA, United States. April 25 – 29.
75. University of Connecticut, Institute of Materials Science, Storrs, CT, United States. April 22.
76. University of Delaware, Chemical Engineering, Newark, DE, United States. April 20.
77. Indiana University-Purdue University Indianapolis, Department of Physics, Indianapolis, IN, United States. April 14.
78. BILL2011 - Bilayers at the ILL, Grenoble, France. January 12 – 14.

2010

79. Australian Nuclear Science and Technology Organisation (ANSTO), Bragg Institute, Sydney, Australia. November 5.
80. * Neutrons and Food Workshop, Australian Nuclear Science and Technology Organisation (ANSTO), Sydney, Australia. October 31 – November 3. (Keynote Speaker)
81. Center for Molecular Biophysics, Oak Ridge National Laboratory, Oak Ridge, TN, United States. October 18.
82. Canadian Institute for Neutron Scattering, Annual General Meeting, Saskatoon, SK, Canada. October 15 – 17.
83. McMaster University, Department of Physics, Hamilton, ON, Canada. March 10.

2009

84. Memorial University, Faculty of Medicine, St. John's, NL, Canada. November 6.
85. Memorial University, Department of Physics, St. John's, NL, Canada. November 5.
86. Cornell University, Department of Molecular Biology and Genetics, Ithaca, NY, United States. October 28.

87. Oak Ridge National Laboratory, Oak Ridge, TN, United States. September 10.
88. Neutrons in Biology 2009, Lund, Sweden. June 22 – 24.
89. Canadian Neutron Beam Centre's Neutron Summer School, Chalk River, ON, Canada. June 15 – 18.
90. Canadian Association of Physicists. Moncton, NB, Canada. June 7 – 10.
91. University of Guelph, Department of Physics, Guelph, ON, Canada. February 10.

2008

92. University of Waterloo, Department of Physics, Waterloo, ON, Canada. December 11.
93. Biological Physics at Large Facilities (Workshop), Institut Max von Laue – Paul Langevin, Grenoble, France. October 20 – 24.
94. National Institute of Standards and Technology, Biomedical Science Division, Gaithersburg, MD, United States. April 24.
95. University of Toronto, Department of Chemistry, Toronto, ON, Canada. March 18.
96. Oak Ridge National Laboratory, Oak Ridge, TN, United States. January 18.

2007

97. University of Toronto, Faculty of Pharmacy, Toronto, ON, Canada. December 14.
98. Université du Québec à Montréal, Department of Chemistry, Montreal, PQ, Canada. November 12.
99. AVS 54th International Symposium and Exhibition, Seattle, WA, United States. October 14 – 17.
- 100.* Chemical Biophysics Symposium, University of Toronto, Toronto, ON, Canada. April 20 – 22. (Keynote Speaker).
101. Paul Scherrer Institut, Villigen, Switzerland. March 13.
102. Austrian Academy of Sciences, Institute of Biophysics and Nanosystems Research, Graz, Austria. March 5.
103. 5th European Winter School on Neutron and Synchrotron Radiation, Plannersalm, Austria. March 5 – 9.

2006

104. AFMNet Workshop: Biopolymer-Based Platforms for Controlled Release Applications in Foods and Biomaterials: Small-Angle Neutron Scattering Workshop, Ryerson University, Toronto, ON, Canada. December 15.
105. Carleton University, Department of Chemistry, Ottawa, ON, Canada. November 27.
106. Imaging and Neutrons 2006, Spallation Neutron Source, Oak Ridge National Laboratory, Oak Ridge, TN, United States. October 23 – 25.
107. Brock University, Department of Physics, St. Catharines, ON, Canada. February 21.

2005

108. University of Prince Edward Island, Department of Physics, Charlottetown, PEI, Canada. December 2.
109. University of Saskatchewan, Department of Biomedical Engineering. November 22.
110. Workshop on Neutron Holography, Budapest, Hungary. November 10 – 12.
111. Canadian Institute for Neutron Scattering, Annual General Meeting, Ottawa, ON, Canada. October 14 – 16.
112. Elettra Sincrotrone Trieste, Trieste, Italy. October 3.
113. Austrian Academy of Sciences, Institute of Biophysics and X-ray Structure Research, Graz, Austria. September 30.
114. Biozentrum, University of Basel, Basel, Switzerland. September 26.
115. Paul Scherrer Institut, Villigen, Switzerland. September 23.
116. Canadian Association of Physicists, Annual Meeting, Division of Medical and Biological Physics, Vancouver, BC, Canada. June 5 - 8.
117. The Electrochemical Society: Symposium on Biophysical Electrochemistry in Honor of Katsumi Niki, Quebec City, QC, Canada. May 15 – 20.

2004

118. Frontiers of Synchrotron and X-ray Scattering, McMaster University, Hamilton, ON, Canada. December 3 - 4.
119. Centre for Food and Soft Materials Science, University of Guelph, Guelph, ON, Canada. April 29.
120. Cornell University, Department of Molecular Biology and Genetics, Ithaca, NY, United States. April 14.
121. American Physical Society, Annual March Meeting, Division of Biological Physics, Montreal, QC, Canada. March 22 - 26.
122. Canadian Light Source Inc., University of Saskatchewan, SK, Canada. March 12.
123. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. March 11.

2003

124. Lakehead University, Department of Physics, Thunder Bay, ON, Canada. October 3.
125. Joint Institute for Neutron Sciences: Neutron Scattering For Chemistry and the Chemistry/Biology Interface (NSF ChemBio)/Sample Environments for Neutron Scattering Experiments (SENSE) Workshop. Florida State University, Tallahassee, FL, United States. Sept. 23 - 26.
126. National Research Council, Institute of Biological Sciences, Ottawa, ON, Canada. July 9.
127. Yale University, Department of Physiology, Hartford, CT, United States. May 12.

2002

128. University of Guelph, Department of Physics, Guelph, ON, Canada. November 19.
129. University of Oxford, Department of Biochemistry, Oxford, UK. September 19.
130. ISIS, Rutherford-Appleton Laboratory, Chilton, UK. September 18.
131. American Chemical Society: Applications of Neutron Scattering in Structural Biology and Biophysics (Structure and Dynamics of Biomembranes and Related Systems), Boston, MA, United States. August 18 – 22.
132. Canadian Nuclear Society, Toronto, ON, Canada. April 25.
133. University of Ottawa, Department of Physics, Ottawa, ON, Canada. April 10.
134. Joint Institute for Neutron Sciences: Using Neutrons to Probe Structure and Dynamics of Biological Systems, Oak Ridge, TN, United States. April 8 - 9.
135. Canadian Nuclear Society, Deep River, ON, Canada. March 19.

2001

136. Institut Laue-Langevin, Grenoble, France. July 12.
137. Institut Européen de Chimie et Biologie, Pessac, France. June 29.

2000

138. Université de Montréal, Department of Chemistry, Montreal, QC, Canada. November 22.
139. Canadian Institute of Neutron Scattering, Annual General Meeting. Montreal, QC, Canada. October 27 – 28.
140. 2nd Annual NRC-Wide Research Forum, Magog, QC, Canada. April 18 – 20.
141. Hahn-Meitner Institute, Berlin, Germany. March 24.
142. University of Munich, Department of Physics and Center for Nanoscience, Munich, Germany. March 21.
143. University of Basel, Biocenter, Basel, Switzerland. March 17.
144. Austrian Academy of Sciences, Institute of Biophysics and X-ray Structure Research, Graz, Austria. March 15.
145. IBR-ELETTRA, Trieste, Italy. March 13.

1999

146. Carnegie-Mellon University, Department of Physics, Pittsburgh, PA, United States. November 11.
147. Canadian Institute of Neutron Scattering, Annual General Meeting, Montreal, QC, Canada. October 22 – 23.
148. National Research Council of Canada, SIMS Chemical Biology Program, Ottawa, ON, Canada. July 23.

1998

149. Queen's University, Department of Physics, Kingston, ON, Canada. September 23.
150. National Institute of Standards and Technology, NIST Center for Neutron Research, Gaithersburg, MD 20899, United States. August 12.
151. Summer School on Neutron Scattering, Neutron Program for Materials Research, Chalk River, ON, Canada. June 23.
152. McGill University, Department of Physics, Montreal, QC, Canada. May 7.

1997

153. EMBL-Hamburg, MPI Colloids and Interfaces, Hamburg, Germany. November 28.
154. Sonderforschungsbereich 294 "Molecules in Interaction with Interfaces", Universität Leipzig, Department of Physics. Leipzig, Germany. November 26.
155. Brock University, Department of Biological Sciences, St. Catharines, ON, Canada. October 30.
156. University of Waterloo, Department of Physics, Waterloo, ON, Canada. October 2.
157. Biological Liquid Crystals Symposium, Liquid Crystal Institute, Kent State University, Kent, OH, United States. May 10.
158. National Research Council of Canada, SIMS Chemical Biology Program, Ottawa, ON, Canada. April 10.
159. European Synchrotron Radiation Facility, Grenoble, France. January 13.

1996

160. University of California, Department of Chemistry and Biochemistry, San Diego, La Jolla, CA, United States. June 11.
161. Brookhaven National Laboratory, Department of Physics, Upton, Long Island, NY, United States. May 20.
162. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, United States. April 1.
163. McMaster University, Department of Biochemistry, Hamilton, ON, Canada. January 23.

1995

164. Summer School on Neutron Scattering, Chalk River Laboratories, Chalk River, ON, Canada. June 7.
165. Concordia University, Department of Physics, Montreal, QC, Canada. March 6.

1994

166. Universität Leipzig, Department of Physics, Leipzig, Germany. July 13.
167. University of Regina, Department of Physics, Regina, SK, Canada. February 25.
168. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. February 21.
169. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. February 18.

170. Université Laval, Department of Chemistry, Quebec City, QC, Canada. February 14.
171. University of Guelph, Department of Physics, Guelph, ON, Canada. January 25.
172. University of Toronto, Department of Medical Biophysics, Toronto, ON, Canada. January 19.
173. AECL Research, Neutron and Condensed Matter Science, Chalk River, ON, Canada. January 10.
174. McMaster University, Department of Biochemistry, Hamilton, ON, Canada. January 3.

1986 – 1993

175. Centre National de la Recherche Scientifique, Pessac, France (1993).
176. Los-Angeles - Bordeaux Club, Bordeaux, France (1993).
177. 1st BHT Crystallographic Workshop, McMaster University, Hamilton, ON, Canada (1992).
178. Concordia University, Department of Physics, Montreal, QC, Canada (1990).
179. Atomic Energy of Canada Limited, Chalk River Nuclear Laboratories, Division of Neutron and Solid State Physics, Chalk River, ON, Canada (1990).
180. Ohio State University, Department of Chemistry, Columbus, OH, United States. (1990).
181. McGill University, Department of Physics, Montreal, QC, Canada (1986).

CONFERENCE CONTRIBUTIONS

2017

1. Nieh, M.-P., Y. Xia, F. A. Heberle and J. Katsaras. Effects of Defects on Lipid Biomembranes. **253rd American Chemical Society National Meeting and Exhibition**. San Francisco, CA, United States. April 2 - 6, 2017.
2. Soubias, O., J. D. Nickels, W. E. Teague, Jr., K. L. Weiss, K. G. Hines, J. Katsaras and K. Gawrisch. Dimerization of a GPCR in Membranes Investigated by SANS. **253rd American Chemical Society National Meeting and Exhibition**. San Francisco, CA, United States. April 2 - 6, 2017.
3. Ashkar, R., M. Zhernenkov, R. G. Toomey, R. Pynn, J. Katsaras, J. Carrillo and B. Sumpter. Topographic Control of Membrane Functions. **253rd American Chemical Society National Meeting and Exhibition**. San Francisco, CA, United States. April 2 - 6, 2017.
4. Nickels, J. D., S. Chatterjee, C. B. Stanley, S. Qian, X. Cheng, D. A. A. Myles, R. F. Standaert, J. G. Elkins and J. Katsaras. Neutron Scattering to Study Membrane Systems: from lipid vesicles to living cells. **253rd American Chemical Society National Meeting and Exhibition**. San Francisco, CA, United States. April 2 - 6, 2017.
5. Nickels, J. D., S. Perticaroli, G. Ehlers, C. B. Stanley, E. Mamontov, H. M. O'Neill, Q. Zhang, D. A. A. Myles and J. Katsaras. Description of Hydration Water in Protein (GFP) Solution. **253rd American Chemical Society National Meeting and Exhibition**. San Francisco, CA, United States. April 2 - 6, 2017.
6. Whited A., A. Johs, J. Katsaras, R. Standaert and A. Jubb. Probing Induced Structural Changes in Biomimetic Bacterial Cell Membrane Interactions with Divalent Cations. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
7. Taylor, G., F. A. Heberle, J. Seinfeld, J. Katsaras, C. P. Collier and S. A. Sarles. Low-Enthalpy Phase Transitions Yield Entropy-Driven Lateral Reorganization and Phase Separation in Synthetic and Natural Multi-Component DIB Membranes. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
8. Marquardt, D., F. A. Heberle, T. Miti, J. Katsaras and G. Pabst. Bilayer Defects Facilitate DPPC Flip-Flop. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
9. Perticaroli, S., G. Ehlers, C. B. Stanley, E. Mamontov, H. M. O'Neill, Q. Zhang, X. Cheng, D. A. A. Myles, J. Katsaras and J. D. Nickels. Description of Hydration Water in Protein (GFP) Solution. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
10. Heberle, F. A., M. Doktorova, J. Pan, D. Marquardt, R. W. Pastor, R. M. Venabale, N. Kučerka and J. Katsaras. The Molecular Structure of Sphingomyelin in Fluid Phase Bilayers Determined by the Joint Analysis of Neutron and X-ray Scattering Data. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
11. Eicher, B., D. Marquardt, J. Katsaras and G. Pabst. Investigation of Transbilayer Coupling in Gel-Fluid Asymmetric Vesicles. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.

12. Nickels, J. D., S. Chatterjee, C. B. Stanley, S. Qian, X. Cheng, D. A. A. Myles, R. F. Standaert, J. G. Elkins and J. Katsaras. Neutron Scattering to Study Membrane Systems: from model membranes to living cells. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
13. Dorrell, M., F. Heberle, J. Katsaras and E. Lyman. Nanoscale Structure of Lipid Bilayers Revealed In-Silico and Experimental Small-Angle Neutron Scattering. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.
14. Soubias, O., J. D. Nickels, W. E. Teague, K. G. Hines, K. L. Weiss, J. Katsaras and K. Gawrisch. Rhodopsin Dimerization in Membrane Bilayers Revealed by Small Angle Neutron Scattering. **61st Annual Meeting of the Biophysical Society**. New Orleans, LA Los Angeles, CA, United States. February 11 - 15, 2017.

2016

15. Marquardt, D., B. Geier, F. A. Heberle, M. Doktorova, J. Katsaras and G. Pabst. A Demonstration of Lipid Flip-flop in Free-Floating Liposomes. **60th Annual Meeting of the Biophysical Society**. Los Angeles, CA, United States. February 27 - March 2, 2016.
16. Geier, B., D. Marquardt, F. A. Heberle, M. Doktorova, J. Katsaras and G. Pabst. Structural Characterization on Asymmetric Lipid Vesicles at Subnanometer Resolution. **60th Annual Meeting of the Biophysical Society**. Los Angeles, CA, United States. February 27 - March 2, 2016.
17. Whited, A. M., F. A. Heberle, R. F. Standaert, J. D. Nickels, X. Cheng, J. Katsaras and A. Johs. Translocase Activity and Asymmetric Model Membranes Probed by Neutron Scattering. **60th Annual Meeting of the Biophysical Society**. Los Angeles, CA, United States. February 27 - March 2, 2016.

2015

18. Heberle, F. A., V. N. P. Anghel, M. Doktorova, B. Greir, D. Marquardt, G. Pabst and J. Katsaras. Probing the Spatial Organization of Lipid Membranes with SANS. **65th Annual Meeting of the American Crystallographic Association**. Philadelphia, PA, United States. July 25 - 29.
19. Nickels, J., S. Chatterjee, J. Elkins, F. Heberle, R. Standaert, D. Myles and J. Katsaras. Biomembrane Structure using Neutron Scattering and Molecular Labeling. **249th ACS National Meeting and Exposition**. Denver, CO, United States. March 22 - 26.
20. Nickels, J., M. Ohl, X. Cheng, F. Heberle, C. Stanley, M. Feygenson, J. Neufeind, P. Zolnierczuk, B. Mostafiari, B. Linder, R. Standaert and J. Katsaras. Experiment and Simulation Reveal the Bending Properties of Nanoscopic Lipid Domains. **249th ACS National Meeting and Exposition**. Denver, CO, United States. March 22 - 26.
21. Heberle, F. A., V. N. P. Anghel and J. Katsaras. Scattering from Lateral Heterogeneous Vesicles: An Analytical Form Factor for Multiple Domains. **59th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 7 - 11.
22. Nickels, J. D., M. Ohl, X. Cheng, C. Stanley, F. Heberle, R. Standaert and J. Katsaras. Experiment and Simulation Reveal the Bending Properties of Nanoscopic Lipid Domains. **59th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 7 - 11.

23. Heftberger, P., B. Kollmitzer, F. Heberle, J. Nickels, J. Katsaras and G. Pabst. Influence of Domain Size on Structure and Elastic Fluctuations in Complex Lipid Mixtures. **59th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 7 - 11.
24. Greathouse, D. V., J. J. Kinnun, J. A. Williams, D. Marquardt, J. B. Klauda, R. E. Koeppe II, J. Katsaras, T. A. Harroun and S. R. Wassall. Disorderly Polyunsaturated Fatty Acids and Orderly Cholesterol: just how do they get along in a membrane. **59th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 7 - 11.

2014

25. Marquardt, D., J. A. Williams, N. Kučerka, J. Attkinson, S. R. Wassall, J. Katsaras and T. A. Harroun. Alpha-Tocopherol in Model Membranes: A Structure-Function Relationship. **American Conference on Neutron Scattering (ACNS)**. Knoxville, TN, United States. June 1 - 5.
26. Heberle, F. A., R. S. Petruzielo, J. Pan, P. Drazba, N. Kučerka, R. F. Standaert, G. W. Feigenson and J. Katsaras. Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. **American Conference on Neutron Scattering (ACNS)**. Knoxville, TN, United States. June 1 - 5.
27. Heberle, F. A., J. D. Nickels, S. Chatterjee, J. Katsaras, R. F. Standaert, D. A. A. Myles and J. G. Elkins. Small-Angle Neutron Scattering Techniques for Probing Lateral Organization of Lipid Membranes in Live Cells. **American Conference on Neutron Scattering (ACNS)**. Knoxville, TN, United States. June 1 - 5.
28. Cheng, X., J. Pan, J. D. Nickels, F. A. Heberle and J. Katsaras. Joining Neutron Scattering and Simulations for Complex Biological Membranes. **American Conference on Neutron Scattering (ACNS)**. Knoxville, TN, United States. June 1 - 5.
29. Marquardt, D., J. A. Williams, J. J. Kinnun, N. Kučerka, J. Attkinson, S. R. Wassall, J. Katsaras and T. A. Harroun. DMPC: A Remarkable Exception to the Tocopherol's Membrane Presence. **58th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 15 - 19.
30. Leng, X. L., J. A. Williams, D. Marquardt, N. Kučerka, J. Katsaras, J. Attkinson, T. A. Harroun, S. Feller and S. R. Wassall. MD Simulations on Alpha-Tocopherol in PUFA Containing-Lipid. **58th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 15 - 19.
31. Heberle, F. A., R. S. Petruzielo, J. Pan, P. Drazba, N. Kučerka, R. F. Standaert, G. W. Feigenson and J. Katsaras. Bilayer Thickness Mismatch Controls Domain Size in Model Membranes. **58th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 15 - 19.
32. Doktorova, M., F. A. Heberle, S. L. Goh, R. F. Standaert, J. Katsaras and G. W. Feigenson. Hybrid and Nonhybrid Lipids Exert Common Effects on Membrane Raft Size and Morphology. **58th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 15 - 19.
33. Naranjo, A. N., J. Katsaras and A. S. Robinson. Short Chain Lipids Maintain Adenosine A2AR Ligand Binding in the Absence of Cholesterol. **58th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 15 - 19.

2013

34. Drolle, E., N. Kučerka, H. I. Hoopes, Y. Choi, J. Katsaras, M. Karttunen and Z. Leonenko. Effect of Melatonin and Cholesterol on the Structure of DOPC and DPPC Lipid Membranes. **9th European Biophysical Societies Association Congress, Lisbon Portugal**. July 13 - 17.
35. Heftberger P., B. Kollmitzer, F. A. Heberle, J. Pan, M. J. Katsaras, N. Kučerka and G. Pabst. Advancing High Resolution Structural Analysis of Lipid Membranes using a Genetic Algorithm. **9th European Biophysical Societies Association Congress, Lisbon Portugal**. July 13 - 17.
36. Heberle, F.A., P. Drazba, J. Pan, J. H. He, K. L. Weiss, H. M. O'Neill, J. Katsaras and R. F. Standaert. Sterol Transfer Rates Measured by Small-Angle Neutron Scattering (SANS) and Fluorescence Resonance Energy Transfer (FRET). **245th National Spring Meeting of the American Chemical Society (ACS)**. New Orleans, LA, United States. April 7 - 11.
37. Pan, J., X. L. Cheng, F. A. Heberle, B. Mostofian, N. Kučerka, P. Drazba, R. F. Standaert and J. Katsaras. Backbone Moiety of Phospholipids Determines Cholesterol Disposition. **245th National Spring Meeting of the American Chemical Society (ACS)**. New Orleans, LA, United States. April 7 - 11.
38. Heberle, F.A., R. S. Petruzielo, J. Pan, P. Drazba, N. Kučerka, R. F. Standaert, G. W. Feigenson and J. Katsaras. Membrane RAFT Mixtures Investigated with Small-Angle Neutron Scattering. **245th National Spring Meeting of the American Chemical Society (ACS)**. New Orleans, LA, United States. April 7 - 11.
39. Marquardt, D., J. A. Williams, N. Kučerka, J. Atkinson, S. R. Wassall, J. Katsaras and T. A. Harroun. Location of Alpha-Tocopherol in Model Membranes and its Effect on Oxidation. **245th National Spring Meeting of the American Chemical Society (ACS)**. New Orleans, LA, United States. April 7 - 11.
40. Naranjo, A. N., J. Katsaras and A. S. Robinson. Isolating a Class A G Protein-Coupled Receptor in its Active Conformation using Short Chain Lipids: Doing Away with Detergents. **245th National Spring Meeting of the American Chemical Society (ACS)**. New Orleans, LA, United States. April 7 - 11.
41. Heberle, F.A., R. Petruzielo, J. Pan, P. Drazba, N. Kučerka, R. F. Standaert, G. W. Feigenson and J. Katsaras. Bilayer Thickness Mismatch Controls Domain Size in Biomimetic Membranes. **American Physical Society, Annual March Meeting**. Baltimore, MD, United States. March 18 - 22.
42. Naranjo, A., J. Katsaras and A. S. Robinson. Short Hydrocarbon Chain Lipids Enable Class of a G Protein-Coupled Receptor Isolation in its Active Conformation: Eliminating the Need for Detergents. **57th Annual Meeting of the Biophysical Society**. Philadelphia, PA, United States. February 2 - 6.
43. Petruzielo, R. S., F. S. Heberle, P. Drazba, J. Katsaras and G. W. Feigenson. SANS, FRET, and ESR Reveal < 6 nm Domains in Brain Sphingomyelin-Containing Membrane Models. **57th Annual Meeting of the Biophysical Society**. Philadelphia, PA, United States. February 2 - 6.
44. Drolle, E., N. Kučerka, Y. Choi, J. Katsaras and Z. Leonenko. Melatonin Counteracts Cholesterol's Effects on Lipid Membrane Structure. **57th Annual Meeting of the Biophysical Society**. Philadelphia, PA, United States. February 2 - 6.

45. Marquardt, D., N. Kučerka, J. A. Williams, J. Atkinson, S. R. Wassall, J. Katsaras and T. A. Harroun. The Location of Vitamin E in Model Membranes and its Effects on Oxidation. **57th Annual Meeting of the Biophysical Society**. Philadelphia, PA, United States. February 2 - 6.
46. Leng, X. L., J. A. Williams, D. Marquardt, N. Kučerka, J. Katsaras, J. Atkinson, T. A. Harroun, S. E. Feller and S. R. Wassall. Interaction of alpha-Tocopherol with a Polyunsaturated Lipid Studied by MD Simulations. **57th Annual Meeting of the Biophysical Society**. Philadelphia, PA, United States. February 2 - 6.

2012

47. Pan, J., F. A. Heberle, S. Tristram-Nagle, M. Szymanski, M. Koepfinger, J. Katsaras and N. Kučerka. Molecular Structures of Fluid Phase Phosphatidylglycerol Bilayers as Determined by Small-Angle Neutron and X-Ray Scattering. **American Conference on Neutron Scattering**. Washington DC, MD, United States. June 24 - 28.
48. Pan, J., F. A. Heberle, M. A. Sharp, P. Drazba, N. Kučerka, and J. Katsaras. A Neutron Spin Echo and Small Angle Scattering Study of Cholesterol in Cardiolipin Bilayers. **American Conference on Neutron Scattering**. Washington DC, MD, United States. June 24 - 28.
49. Kučerka, N., B. Holland, J. Pan, F. A. Heberle, C. G. Gray, B. Tomberli and J. Katsaras. The Detailed Scattering Density Profile Model of PG Bilayers As Determined by Molecular Dynamics Simulations, and Small-Angle Neutron and X-ray Scattering Experiments. **56th Annual Meeting of the Biophysical Society**. San Diego, CA, United States. February 25 - 29.
50. Heberle, F.A., R. Petruzielo, J. Pan, P. Drazba, N. Kucerka, G.W. Feigenson and J. Katsaras. The Dependence of Membrane Raft Size on Membrane Composition: A Small-Angle Neutron Scattering Study. **56th Annual Meeting of the Biophysical Society**. San Diego, CA, United States. February 25 - 29.
51. Pan, J., F. A. Heberle, N. Kučerka, S. Tristram-Nagle, M. Szymanski, M. Koepfinger and J. Katsaras. Molecular Structure of Phosphatidylglycerol Bilayers: Fluid Phase Lipid Areas and Bilayer Thicknesses as a Function of Temperature. **56th Annual Meeting of the Biophysical Society**. San Diego, CA, United States. February 25 - 29.
52. Morales, H. H., M. Li, J. Katsaras, M.-P. Nieh and P. M. Macdonald. Effect of Charge on DMPC/Chapso Bicellar Mixtures as Characterized by NMR and SANS. **56th Annual Meeting of the Biophysical Society**. San Diego, CA, United States. February 25 - 29.
53. Pan, J., F. A. Heberle, N. Kučerka, S. Tristram-Nagle, M. Szymanski, M. Koepfinger and J. Katsaras. Application of Small-Angle Neutron and X-ray Scattering in Determining Lipid Bilayer Structure. **American Physical Society, Annual March Meeting**. Boston, MA, United States. February 27 - March 2.

2011

54. Kučerka, N., M.-P. Nieh and J. Katsaras. Lipid Areas Obtained from the Simultaneous Analysis of Neutron and X-ray Scattering. **55th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. March 5 - 9.

2010

55. Fradin, C., D. Satsoura, A. Shamas-Din, S. Shivakumar, B. Leber, D. W. Andrews, N. Kučerka and J. Katsaras. Bax Pore Formation, from Activation to Oligomerization. **54th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 20 - 24.

56. Tristram-Nagle, S., D. J. Kim, N. Akhuzada, N. Kučerka, J. C. Mathai, J. Katsaras, M. Zeidel and J. F. Nagle. Structure and Water Permeability of Fully Hydrated Diphytanoyl PC. **54th Annual Meeting of the Biophysical Society**. San Francisco, CA, United States. February 20 - 24.

2009

57. Nieh, M.P., J. Katsaras, E. Nicholson, R. Soong and P. MacDonald. Detailed Structure of a Magnetically Alignable Mixture – Bicelles. **92nd Canadian Chemistry Conference and Exhibition**. Hamilton, ON, Canada. May 30 - June 3.
58. Mahabir, S., M.-P. Nieh, J. Katsaras and W. K. Wan. SANS Characterization of Self-Assembled Unilamellar Vesicles for Controlled Release. **Canadian Biomaterials Society**. Quebec City, QC, Canada. May 20 - 23.
59. Nieh, M.-P., Z. Yamani, N. Kučerka and J. Katsaras. Adapting a Triple-Axis Spectrometer for Small Angle Neutron Scattering Measurements. **International Conference on Neutron Scattering**. Knoxville, TN, United States. May 3 - 7.
60. Harroun, T.A., J. Atkinson, J. Katsaras and S. R. Wassall. A Molecular Understanding of Vitamin-E in Membranes. **International Conference on Neutron Scattering**. Knoxville, TN, United States. May 3 - 7.
61. Kučerka, N., J. Gallová, D. Uhríková, P. Balgavý and J. Katsaras. The Need to Revisit Lipid Areas. **International Conference on Neutron Scattering**. Knoxville, TN, United States. May 3 - 7.
62. Kučerka, N., M.-P. Nieh, D. Marquardt, T. A. Harroun, S. R. Wassall and J. Katsaras. Cholesterol in Unusual Places. **International Conference on Neutron Scattering**. Knoxville, TN, United States. May 3 - 7.

2008

63. Nieh, M.-P., Z. Yamani, N. Kučerka and J. Katsaras. Structural Characterization of Soft Materials with Small Angle Neutron Scattering - General Introduction and New Development at Chalk River Laboratories, **58th Canadian Chemical Engineering Conference**. Ottawa, ON, Canada. October 20 - 22.
64. Nieh, M.-P., J. Katsaras, U. Iqbal, A. Abulrob, D. Stanimirovic and U. Tuor. A Recent Development of Spontaneously Forming Liposomes for Potential Diagnostic and Therapeutic Carriers. **58th Canadian Chemical Engineering Conference**. Ottawa, ON, Canada. October 20 - 22.
65. Katsaras, J., N. Kučerka, M.-P. Nieh, T. Harroun, S. Schooling, E. Papp-Szabo, J. Pencer, E. Nicholson, T. Beveridge. Effect of Cations on the Structure of Lipopolysaccharide Bilayers Isolated from *P. aeruginosa* PAO1. **Canadian Association of Physicists**. Quebec City, QC, Canada. June 8 - 11.
66. Kučerka, N., J. Pencer, V. Anghel, M.-P. Nieh and J. Katsaras. Detection of Lipid Rafts by Neutron Scattering. **Canadian Association of Physicists**. Quebec City, QC, Canada. June 8 - 11.
67. Kučerka, N., J. Pencer, V. Anghel, M.-P. Nieh and J. Katsaras. Detection of Lipid Rafts by Neutron Scattering. **Canadian Association of Physicists**. Quebec City, QC, Canada. June 8 - 11.

68. Nieh, M.-P., Z. Yamani, J. Katsaras and N. Kučerka. Small Angle Neutron Scattering Development at the Canadian Neutron Beam Centre (CNBC) – Chalk River Laboratories. **American Conference on Neutron Scattering**. Santa Fe, NM, United States. May 11 - 15.
69. Kučerka, N., J. F. Nagle, J. N. Sachs, S. E. Feller, J. S. Pencer, A. J. Jackson and J. Katsaras. Lipid Bilayer Structure Determined by the Simultaneous Analysis of Neutron and X-ray Scattering Data. **American Conference on Neutron Scattering**. Santa Fe, NM, United States. May 11 - 15.
70. Harroun, T. A., S. J. Marrink, A. H. de Vries, J. Katsaras and S. R. Wassall. The Location of Cholesterol in Polyunsaturated Fatty Acid Membranes. **American Conference on Neutron Scattering**. Santa Fe, NM, United States. May 11 - 15.
71. Kučerka, N., J. F. Nagle, J. Sachs, S. Feller, J. Pencer, A. Jackson and J. Katsaras. Lipid Area Refinement Based on a Simultaneous Analysis of Neutron and X-ray Scattering Data and All-Atom Molecular Dynamics Simulations. **52nd Annual Meeting of the Biophysical Society**. Long Beach, CA, United States. March 2 - 6.
72. Kučerka, N., T. Abraham, S. R. Schooling, M.-P. Nieh and J. Katsaras. Neutron Diffraction Studies of Lipopolysaccharide Bilayers. **52nd Annual Meeting of the Biophysical Society**. Long Beach, CA, United States. March 2 - 6.

2007

73. Pabst, G., S. Dannerl, R. Podgornik and J. Katsaras. Entropy-Driven Softening of Fluid Lipid Bilayers by Alamethicin. **48th International Conference on the Bioscience of Lipids**. Turku, Finland. September 4 - 8.
74. Kučerka, N., J. Pencer, J. Sachs, J. F. Nagle and J. Katsaras. Curvature Effect on the Structure of Unilamellar Vesicles. **Canadian Association of Physicists**. Saskatoon, SK, Canada. June 17-20.
75. Feng, W., M.-P. Nieh, S. Zhu, T.A. Harroun, J. Katsaras and J.L. Brash. Characterization of Biocompatible Polymer Thin Films, Grafted Poly-(methacrylate) with Oligo(ethylene glycol) and Phosphorylcholine Side Chains, by Neutron Reflectometry. **Canadian Association of Physicists**. Saskatoon, SK, Canada. June 17 - 20.
76. Nieh, M.-P., J. Pencer, J. Katsaras and X. Qi. Controlled Release and Controlled Size of Spontaneous Unilamellar Vesicles with Low Polydispersities. **Canadian Association of Physicists**. Saskatoon, SK, Canada. June 17 - 20.
77. Kučerka, N., J. Pencer, M.-P. Nieh and J. Katsaras. Influence of Cholesterol on the Bilayer Properties of Mono-unsaturated Phosphatidylcholine Unilamellar Vesicles. **Canadian Association of Physicists**. Saskatoon, SK, Canada. June 17 - 20.
78. Abraham, T., S. Schooling, N. Kučerka, M.-P. Nieh, T. Beveridge and J. Katsaras. Neutron Diffraction Study of *Pseudomonas aeruginosa* Lipopolysaccharide Bilayers. **Canadian Association of Physicists**. Saskatoon, SK, Canada. June 17 - 20.
79. Nieh, M.-P., N. Kučerka, J. Pencer and J. Katsaras. The Morphologies of Magnetically Alignable Bicelle Mixtures. **90th Canadian Chemistry Conference and Exhibition**. Winnipeg, MB, Canada. May 26 - 30.

80. Pencer, J., M.-P. Nieh, T. A. Harroun, S. Krueger, C. P. Adams and J. Katsaras. Bilayer Thickness and Thermal Response of DMPC Unilamellar Vesicles Containing Cholesterol, Ergosterol and Lanosterol. **51st Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. March 3 - 7.
81. Harroun, T. A., J. Katsaras, J. Atkinson and S. R. Wassall. Cholesterol Hydroxyl Group Resides in the Center of a Polyunsaturated Lipid Membrane. **51st Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. March 3 - 7.
82. Kučerka, N., J. Pencer, J. N. Sachs, J. F. Nagle and J. Katsaras. Curvature Effect on the Structure of Phospholipid Bilayers. **51st Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. March 3 - 7.

2006

83. Katsaras, J., M.-P. Nieh, M.-P., J. Pencer and X. Qi. Properties of Spontaneously Formed Unilamellar Vesicles and their Interaction with Saposin C. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
84. Katsaras, J., D. Dee, J. Pencer, M.-P. Nieh, S. Krueger and R. Y. Yada. Small-Angle Neutron Scattering Studies of Native, Partially Unfolded and Reolded Porcine Pepsin. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
85. Pencer, J., T. Masui, T. T. Mills, M. Imai, N. Urakami and J. Katsaras. Methods to Prepare, Detect and Characterize Domains in Model Membranes by Neutron Scattering. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
86. Nieh, M.-P., J. Pencer, T. Abraham and J. Katsaras. Parameters that Affect Polydispersity, Size and Shape of Spontaneous Lipid Unilamellar Vesicles. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
87. Pencer, J., M.-P. Nieh, T. A. Harroun, S. Krueger, C. P. Adams and J. Katsaras. Bilayer Thickness and Thermal Response of Dimyristoylphosphatidylcholine Unilamellar Vesicles Containing Cholesterol, Ergosterol and Lanosterol. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
88. Abraham, T., M.-P. Nieh, S. Schooling, J. Pencer, T. J. Beveridge and J. Katsaras. Neutron Diffraction Studies of the Bilayer Structure of Lipopolysaccharide from *Pseudomonas Aeruginosa*. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
89. Harroun, T. A., J. Katsaras and S. R. Wassall. Neutron Diffraction to Probe the Location of Cholesterol Hydroxyl Group in Lipid Membrane. **Canadian Association of Physicists**. St. Catharines, ON, Canada. June 11 - 14.
90. Nieh, M.-P., V. A. Raghunathan, C.-Y. Huang, J. Pencer and J. Katsaras. Spontaneously Forming Unilamellar Nano-Sized Vesicles: Polydispersity, Size, Shape and Stability. **NSTI Nanotechnology Conference and Trade Show**. Boston, MA, United States. May 7 - 11.
91. Huang, C. Y., M.-P. Nieh, V. A. Raghunathan and J. Katsaras. Fluctuations of Model Biomimetic Membranes with Perforation Defects. **229th Annual Meeting of the American Chemical Society**. San Diego, CA, United States. March 13 - 17.
92. Nieh, M.-P., C. Y. Huang, V. A. Raghunathan and J. Katsaras. Perforation Defects on Model Biomimetic Membrane: A Neutron Scattering Study. **229th Annual Meeting of the American Chemical Society**. San Diego, CA, United States. March 13 - 17.

2005

93. Pencer, J., T.A. Harroun, M.-P. Nieh, T. Abraham, and J. Katsaras. Biomembrane Structure and Function from Neutron Scattering. **Annual General Meeting of the Canadian Institute for Neutron Scattering**. Ottawa, ON, Canada. Oct. 14 -16.
94. Nieh, M.-P., V. A. Raghunathan, T. A. Harroun and J. Katsaras. Perforation Defects on Model Biomimetic Membrane: A Neutron Scattering Study. **229th Annual Meeting of the American Chemical Society**. San Diego, CA, United States. March 13 - 17.
95. Huang, C.-Y., M.-P. Nieh, V. A. Raghunathan and J. Katsaras. Fluctuations of Model Biomimetic Membranes with Perforation Defects. **229th Annual Meeting of the American Chemical Society**. San Diego, CA, United States. March 13 - 17.
96. Pencer, J., S. Krueger, R. M. Epand and J. Katsaras. Neutrons See Domains or So-Called "Rafts" in Lipid Membrane Vesicles. **American Crystallographic Association**. Orlando, FL, United States. May 28 - June 2.
97. Pencer, J., S. Krueger, R. M. Epand and J. Katsaras. Detection of Submicron-Sized Domains or So-Called Rafts in Membranes by Small-Angle Neutron Scattering. **49th Annual Meeting of the Biophysical Society**. Long Beach, CA, United States. Feb. 12 - 16.
98. Harroun, T. A., M. Koslowski, M.-P. Nieh, C.-F. de Lannoy, V.A. Raghunathan and J. Katsaras. Comprehensive Phase Diagrams of DMPC/DHPC "Bicelle" Mixtures. **49th Annual Meeting of the Biophysical Society**. Long Beach, CA, United States. Feb. 12 - 16.

2004

99. Pencer, J., S. Krueger, R. M. Epand and J. Katsaras. Detection and Characterization by Small-Angle Neutron Scattering of Lateral Segregation or "Rafts" in Lipid - Sterol Mixtures in Large Unilamellar Vesicles. **2004 Biophysical Society Discussions**. Asilomar, California, United States. October 28 - 31.
100. Harroun, T. A., K. Balali-Mood, J. P. Bradshaw and J. Katsaras. A Structural Study of a Myristoylated Membrane Binding Peptide. **Canadian Association of Physicists**. Winnipeg, MB, Canada. June 13 - 16.
101. Katsaras, J., T. A. Harroun, V. A. Raghunathan and M.-P. Nieh. Novel Finite-Size Effects in Biomimetic Smectic Films. **Canadian Association of Physicists**. Winnipeg, MB, Canada. June 13 - 16.
102. Raghunathan, V. A., M.-P. Nieh, T. A. Harroun and J. Katsaras. Phase Behaviour of Aqueous Solutions of Short and Long Chain Phospholipids. **Canadian Association of Physicists**. Winnipeg, MB, Canada. June 13 - 16.
103. Nieh, M.-P., V. A. Raghunathan, T. A. Harroun and J. Katsaras. Spontaneous Formation of Monodisperse Small Unilamellar Vesicles – Kinetically Trapped or Thermodynamically Stable? **Canadian Association of Physicists**. Winnipeg, MB, Canada. June 13 - 16.
104. Yue, B. H, C.-Y. Huang CY, M.-P. Nieh, C. J. Glinka and J. Katsaras. Spontaneously Forming Unilamellar Phospholipid Vesicles: A DLS and SANS Study. **227th Annual Meeting of the American Chemical Society**. Anaheim, CA, United States. March 29 - 31.
105. Nieh, M.-P., V. A. Raghunathan, M. Chakrapani, T. A. Harroun and J. Katsaras. Structural Phase Behavior of a Highly Aligned Model Membrane – "Bicelles". **227th Annual Meeting of the American Chemical Society**. Anaheim, CA, United States. March 29 - 31.

106. Harroun, T. A., M.-P. Nieh, J. Katsaras, K. Balali-Mood and J.P. Bradshaw. A Study of Basic Membrane Anchoring Switching Domains. **48th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 15 - 19.
107. Chakrapani, M., A. Ianoul, L. J. Johnston and J. Katsaras. Atomic Force Microscopy Studies of α -amyloid in Supported Lipid Bilayers. **48th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 15 - 19.
108. Nieh, M.-P., T. A. Harroun and J. Katsaras. Alignable Phospholipid Mixture in Solutions through a Weak Shear. **48th Annual Meeting of the Biophysical Society**. Baltimore, MD, United States. February 15 - 19.

2003

109. Yue, B., C.-Y. Huang, H. Otto, M.-P. Nieh, J. Katsaras and C. J. Glinka. Structures and Stability of Unilamellar Phospholipid Vesicles. **226th ACS National Meeting**. New York, NY, United States. September 7 - 11.
110. Katsaras, J., T. A. Harroun and M.-P. Nieh. The Relationship Between the Unbinding and Main Transition Temperatures in Phospholipid Bilayers is a Universal Constant. **Canadian Association of Physicists**. Charlottetown, PEI, Canada. June 8 - 11.
111. Katsaras, J., M.-P. Nieh and T. A. Harroun. A Metastable Lamellar Phase, Populated with Defects and Induced by Macroscopic Confinement. **Canadian Association of Physicists**. Charlottetown, PEI, Canada. June 8 - 11.
112. Nieh, M.-P., T. A. Harroun and J. Katsaras. Spontaneous Formation of Monodispersed Unilamellar Vesicles Suitable as Carriers for Drugs and Bio-Molecules. **Canadian Association of Physicists**. Charlottetown, PEI, Canada. June 8 - 11.
113. Nieh, M.-P., C. J. Glinka and J. Katsaras. Spontaneously Formed Monodispersed Unilamellar Vesicles for Controlled Drug Delivery. **47th Annual Meeting of the Biophysical Society**. San Antonio, TX, United States. March 1 - 5.
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