

JOHN KATSARAS

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CURRENT APPOINTMENTS

11/11/2010 **Senior Scientist Biological Systems / ORNL Distinguished R&D Staff**, Sample Environment Section, Neutron Sciences Directorate, Oak Ridge National Laboratory, Oak Ridge, TN, United States

08/28/2015 **Faculty**, Bredesen Center for Interdisciplinary Research and Graduate Education, University of Tennessee, Knoxville, TN, United States

07/01/2013 **Joint Faculty Professor**, Department of Physics and Astronomy, University of Tennessee, Knoxville, TN, United States

07/01/2006 **Adjunct Professor**, Department of Physics, Brock University, St. Catharines, ON, Canada

PROFESSIONAL PREPARATION

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

AWARDS

- Neutron Scattering Society of America, Sustained Research Prize (2022)
- Oak Ridge National Laboratory, Significant Event Award, United States (2017)
- 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, Canada (1987 - 88; 1989 - 90)

- Physical Sciences Graduate Scholarship, College of Physical and Engineering Science, University of Guelph, Canada (1986 - 87; 1988 - 89)

FELLOWSHIPS (Scientific Societies)

- Neutron Scattering Society of America (2018)
- American Institute for Medical and Biological Engineering (2018)

HONORS (Keynote/Plenary/Prize Presentations)

- American Conference on Neutron Scattering, Boulder, CO, United States. 2022
- International Conference on Neutron Scattering (ICNS), Buenos Aires, Argentina. 2022
- Workshop on Dynamics of Membranes and their Constituents, Lund Institute of Advanced Neutron and X-ray Science. Lund, Sweden. 2018
- Workshop on Status and Perspectives in Research on Membrane Structure and Interaction Membranes Beyond. Hamilton, ON, Canada - in honor of John Katsaras' 60th birthday and to celebrate his and his group's scientific achievements. 2018
- 8th Taiwan-Japan Joint Meeting on Neutron and X-ray Scattering. National Central University, Taoyuan City, Taiwan. 2018
- 7th Annual Nano Ontario Conference on Nanobio and Sustainability, Guelph, ON, Canada. 2016
- Workshop on Synchrotron and Neutron Scattering in Biomaterials and Soft Matter, Malmö, Sweden. 2016
- 3rd International Conference on Small Angle Neutron Scattering in Dubna. Dubna, Russia. 2016
- 2nd Annual Meeting of the Biophysical Society of Canada. Winnipeg, MB, Canada. 2016
- Workshop on Water, Membrane Structure and Biological Significance, Santiago del Estero, Argentina. 2015
- 61st Benzon Symposium on Structural Biology on the Move, Copenhagen, Denmark. 2015
- Biomedical Science and Engineering Center – Annual ORNL Biomedical Science and Engineering Conference, Oak Ridge National Laboratory, Oak Ridge, TN, United States. 2014
- Workshop on Frontiers of Hybrid Medical Imaging. University of Saskatchewan, Saskatoon, SK, Canada. 2013
- Sigma Pi Sigma Honor Society Lecture. Department of Physics, Villanova, PA, United States. 2011
- Neutrons and Food Workshop, Australian Nuclear Science and Technology Organisation (ANSTO), Sydney, Australia. 2010
- Chemical Biophysics Symposium, University of Toronto, Toronto, ON, Canada. 2007

TRAINING

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

JOURNAL EDITORIAL FUNCTIONS

CURRENT

- Associate Editor – Frontiers in Molecular Biosciences (Lipids, Membranes and Membranous Organelles). (October 2022 – Present)
- Associate Editor – Chemistry and Physics of Lipids (November 1, 2017 – Present)
- Editorial Board Member – Biochimica Biophysica Acta Biomembranes (December 1, 2018 - Present)
- Editorial Board Member – Membranes (October 2015 – Present)

PREVIOUS

- Review Editor – Frontiers in Molecular Biosciences – Review Editor on the Editorial Board of Lipids, Membranes and Membranous Organelles (November 2021 – October 2022)
- Editorial Advisory Board Member – Chemistry and Physics of Lipids (August 2011 – October 31, 2017)

PREVIOUS APPOINTMENTS

- Adjunct Professor, Department of Physics and Astronomy, University of Tennessee, Knoxville, TN, United States. June 1, 2011 - June 30, 2013
- Affiliated Faculty, Institute of Biomedical Engineering, University of Tennessee, Knoxville, TN, United States. 09/16/2013
- 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
- Associate Member, Biophysics Interdepartmental Group, University of Guelph, Guelph, ON, Canada. November 2000 - November 2004
- 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
- Associate Member, Guelph-Waterloo Physics Institute, Waterloo, ON, Canada. February 1995 - February 1999
- Research Associate, Neutron and Condensed Matter Science, Atomic Energy of Canada Limited, Chalk River, On, Canada. September 19, 1994 - March 31, 1997

PROFESSIONAL SERVICE

- Natural Sciences and Engineering Research Council of Canada (NSERC), Physics Research Tools and Instruments (RTI) Selection Committee – Member. August 2021 – August 2023.
- ORNL Postdoctoral Program Engagement Committee – Member. July 1, 2021 - June 30, 2023.
- ORNL Postdoc Executive Committee – Member. June 2021 – Present.
- International Conference on Neutron Scattering 2022 (ICNS 2022) – International Program Committee Member. 2021 – 2022.
- Natural Sciences and Engineering Research Council of Canada (NSERC), Physics Research Tools and Instruments (RTI) Selection Committee – Member. August 2020 – August 2021.
- National Science Foundation, MCB NSF P202027 Review – Panelist. June 5, 2020.
- National Science Foundation, ChemMatCars Workshop on “Liquid Interfaces” – Biomembranes Working Group Participant. November 21 - 22, 2019
- National Science Foundation, MRSEC NSF 19-517 Review – Panelist. September 5 - 6, 2019.

- UT-Battelle Awards, Early Career Research Achievements Committee – Selection Committee Member. August 10, 2018
- National Science Foundation, Site Review of The Center for High Energy X-Ray Science (CHEXS) at CHESS – Committee Member. April 17 - 19, 2018
- 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 – Member of 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 Member for the Science and Sustained Research Prizes. 2014
- NCTR (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
- Natural Sciences and Engineering Research Council of Canada (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

- American Chemical Society, ACS National Meeting and Exposition, Indianapolis, IN (Hybrid) – Poster Session: Fundamental Research in Colloids, Surfaces and Nanomaterials – Co-organizer. March 26 - 30, 2023
- American Chemical Society, ACS National Meeting and Exposition, Indianapolis, IN (Hybrid) – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. March 26 - 30, 2023
- International Conference on Neutron Scattering 2022 (ICNS 2022), Buenos Aires, Argentina – International Program Committee Coordinator for Biology and Biotechnology, and Life Sciences. March 2022.

- International Conference on Neutron Scattering 2022 (ICNS 2022), Buenos Aires, Argentina – Platform Session: Neutrons for Food Materials Science and Technology: Current Status and Opportunities. August 24, 2022
- American Chemical Society, ACS National Meeting and Exposition, San Diego, CA (Virtual) – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. March 20 - 24, 2022
- 2021 Joint Nanoscience and Neutron Scattering User Meeting (Virtual) – Workshop: Nanoscopic Characterization of Resources for Biological Materials – Organizer and Chair. August 20, 2021
- American Chemical Society, ACS National Meeting and Exposition (Virtual) – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. April 5 – 30, 2021
- American Chemical Society, ACS National Meeting and Exposition, Philadelphia, PA, United States – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer. March 22 - 26, 2020
- Workshop on Neutrons in Biology: Emergent Topics, University of Tennessee, Knoxville, TN, United States – Co-organizer. November 8, 2019
- Workshop on Lateral Membrane Heterogeneity, Oak Ridge National Laboratory, Oak Ridge, TN, United States – Co-organizer. October 16 - 17, 2019
- American Chemical Society, ACS National Meeting and Exposition, Orlando, FL, United States – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. March 31 - April 4, 2019
- Workshop on Dynamics of membranes and their Constituents, Lund Institute of Advanced Neutron and X-ray Science, Lund, Sweden – Panel Discussion Moderator. September 12 -14, 2018
- American Chemical Society, ACS National Meeting and Exposition, New Orleans, LA, United States – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. March 18 - 22, 2018
- National Science Foundation Workshop on Progress and Prospects in Neutron Scattering for the Biological Sciences. Alexandria, VA, United States – Chair of Membranes Sessions. February 20 - 22, 2018
- Workshop on Inhomogeneous Membranes, Shull Wollan Center, Oak Ridge, TN, United States – Co-organizer. September 13, - 15, 2017
- American Chemical Society, ACS National Meeting and Exposition, San Francisco, CA, United States – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. April 2 - 6, 2017
- American Conference on Neutron Scattering, Long Beach, CA, United States – Tutorial Session Neutrons in Biology – Organizer. July 10 - 14, 2016
- American Chemical Society, ACS National Meeting and Exposition, San Diego, CA, United States – Platform Sessions: Biomembrane Synthesis, Structure, Mechanics and Dynamics – Co-organizer/Co-chair. March 13 - 17, 2016
- American Chemical Society, ACS National Meeting and Exposition, Boston, MA, United States – Platform Session: Metrology of Characterization, Simulation and Theory of Biomembrane -- 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
- 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 National Meeting and Exposition, 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. 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

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Chemical Society
- American Physical Society
- American Institute for Medical and Biological Engineering
- Neutron Scattering Society of America
- Biophysical Society of Canada
- Biophysical Society
- Materials Research Society

OUTPUT / METRICS

Refereed Journal Publications: 191

Refereed Conference Proceedings: 15

Review Articles (refereed): 26

Books/Special Issues (Editor/Co-Editor): 9

Book Chapters: 16

Technical Reports: 11

Invited Talks: 211 (16 Plenary/Keynote)

Conference Contributions: 179

H-Index: Web of Science – 55; Scopus – 58; Google Scholar – 67

APPENDICES

REFEREED ARTICLES

2023

1. Tan, L., H. L. Scott, M. D. Smith, S. V. Pingali, H. O'Neill, J. Morrell-Falvey, **J. Katsaras**, J. C. Smith, B. H. Davison, J. G. Elkins, J. D. Nickels. Amphiphilic Co-Solvents Modulate the Structure of Membrane Domains. *ACS Sustainable Chem. Eng.* **11**, 1598 – 1609 (2023).
2. Kangarlou, B., D. Hoy, H. L. Scott, S. V. Pingali, N. Khalil, B. Chung, **J. Katsaras** and M.-P. Nieh. Water Content in Nanoparticles Determined by Small-Angle Neutron Scattering and Light Scattering. *Langmuir* **39**, 227 – 235 (2023).

2022

3. Z. Liu, L. Lin, T. Li, J. J. Kinnun, K. Hong, Y.-Z. Ma, R. L. Sacci, **J. Katsaras**, J.-M. Carrillo, B. Doughty and C. P. Collier. Squeezing Out Interfacial Solvation: The Role of Hydrogen-Bonding in the Structural and Orientational Freedom of Molecular Self-Assembly. *J. Phys. Chem. Lett.* **13**, 2273 - 2280 (2022).
4. Winn, B. L., C. Broholm, M. D. Bird, B. Haberl, G. E. Granroth and **J. Katsaras**. A Flexible Neutron Spectrometer Concept with a New Ultra-High Field Steady-State Vertical-Bore Magnet. *Rev. Sci. Instrum.* **93**, 123903 (2022).
5. Scott, H. L., D. Bolmatov, P. T. Podar, Z. Liu, J. J. Kinnun, B. Doughty, R. Lydic, R. L. Sacci, C. P. Collier and **J. Katsaras**. Evidence for Long-Term Potentiation in Phospholipid Membranes. *Proc. Natl. Acad. Sci. U.S.A* **119**, e2212195119 (2022).
6. Lin, L., Z. Liu, Y-Z. Ma, R. L. Sacci, **J. Katsaras**, K. Hong, C. P. Collier, J-M. Carrillo and B. Doughty. The Unexpected Role of Cations in the Self-Assembly of Positively Charged Amphiphiles at Liquid/Liquid Interfaces. *J. Phys. Chem. Lett.* **13**, 19889 – 10896 (2022).
7. Tan, L., M. D. Smith, H. S. Scott, A. Yahya, J. G. Elkins, **J. Katsaras**, H. M. O'Neill, S. V. Pingali, J. C. Smith, B. H. Davison and J. D. Nickels. Modelling the Partitioning of Amphiphilic Molecules and Co-Solvents in Biomembranes. *J. Appl. Cryst.* **55**, (2022).
8. Lamichhane, T. N., T. R. Charlton, B. Andrews, D. Malayiya, A. K. Pathak, H. Ambaye, M. Doucet, V. Lauter, **J. Katsaras**, B. K. Post and M. P. Paranthaman. Additively Manufactured NdFeB PPS Halbach Magnets to Generate Variable Magnetic Fields for Neutron Reflectometry. *3D Print. Addit. Manuf.* **9**, 245 - 254 (2022).
9. Lin, L., A. U. Chowdhury, Y.-Z. Ma, R. L. Sacci, **J. Katsaras**, K. Hong, C. P. Collier, J.-M. Y. Carrillo and B. Doughty. Ion-Pairing and Molecular Orientation at Liquid/Liquid Interfaces: Self-Assembly and Function. *J. Phys. Chem. B* **126**, 2316 - 2323 (2022).
10. Alahmadi, I., D. Hoy, T. R. Armin; S. Patil, A. Alahmadi, J. Kinnun, H. Scott, **J. Katsaras** and M.-P. Nieh. Changes Experienced by Low-Concentration Lipid Bicelles as a Function of Temperature. *Langmuir* **38**, 4332 - 4340 (2022).
11. Sacci, R. L., H. L. Scott, Z. Liu, D. Bolmatov, B. Doughty, **J. Katsaras** and C. P. Collier. Disentangling Memristive and Memcapacitive Effects in Droplet Interface Bilayers using Dynamic Impedance Spectroscopy. *Adv. Electron. Mater.* 2200121 (2022).

12. M. DiPasquale, T. G. Deering, D. Desai, A. K. Sharma, S. Amin, T. E. Fox, M. Kester, **J. Katsaras**, D. Marquardt and F. A. Heberle. Influence of Ceramide on Lipid Domain Stability Studied with Small Angle Neutron Scattering: The role of acyl chain length and unsaturation. *Chem. Phys. Lipids* **245**, 105205 (2022).
13. McClintic, W. T., H. L. Scott, N. Moore, M. Farahat, M. Maxwell, C. D. Schuman, D. Bolmatov, F. Barrera, **J. Katsaras** and C. P. Collier. Heterosynaptic Plasticity in Biomembrane Memristors Controlled by pH. *MRS Bull.* **47**, 1 - 9 (2022)

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14. Lin, L., A. U. Chowdhury, Y.-Z. Ma, R. L. Sacci, **J. Katsaras**, K. Hong, C. P. Collier, J.-M. Y. Carrillo and B. Doughty. Ion Pairing Mediates Molecular Organization Across Liquid/Liquid Interfaces. *ACS Appl. Mater. Interfaces* **13**, 33734 - 33743 (2021).
15. Ashkar, R., M. Doktorova, F. A. Heberle, H. L. Scott, F. N. Barrera, **J. Katsaras**, G. Khelashvili and M. F. Brown. Reply to Nagle et al.: The Universal Stiffening Effects of Cholesterol on Lipid Membranes. *Proc. Natl. Acad. Sci. USA* **118**, e2102845118 (2021).
16. Frampton, M. B., D. Yakoub, **J. Katsaras**, P. M. Zelisko and D. Marquardt. A Calorimetric, Volumetric and Combined SANS and SAXS Study of Hybrid Siloxane Phosphocholine Bilayers. *Chem. Phys. Lipids* **241**, 105149 (2021).

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17. DiPasquale, M., M. H. L. Nguyen, B. W. Rickeard, N. Cesca, C. Tannous, S. R. Castillo, **J. Katsaras**, E. G. Kelley, F. A. Heberle, D. Marquardt. The Antioxidant Vitamin E as a Membrane Raft Modulator: Tocopherols do not abolish lipid domains. *Biochim. Biophys. Acta* **1862**, 183189 (2020).
18. Hutchison, J., K.-C. Shih, H. Scheidt, S. Fantin, G. Pantepoulos, H. Harrington, K. Mittendorf, S. Qian, R. Stein, S. Collier, M. Chambers, **J. Katsaras**, M. Voehler, B. Ruotolo, D. Huster, R. McFeeters, J. Straub, M.-P. Nieh, and C. Sanders. Bicelles Rich in both Sphingolipids and Cholesterol and Their Use in Studies of Membrane Proteins. *J. Am. Chem. Soc.* **142**, 12715 - 12729 (2020).
19. Dorrell, M., F. A. Heberle, **J. Katsaras**, L. Maibaum, E. Lyman and A. Sodt. Laterally Resolved Small-Angle Scattering Intensity from Bilayer Simulations: an exact and a limited-range treatment. *J. Chem. Theory Comput.* **16**, 5287 - 5300 (2020).
20. Doktorova, M., N. Kučerka, J. J. Kinnun, J. Pan, D. Marquardt, R. M. Venable, R. W. Pastor, S. R. Wassall, **J. Katsaras** and F. A. Heberle. The Molecular Structure of Sphingomyelin Fluid Phase Bilayers Determined by the Joint Analysis of Small-Angle X-Ray and Neutron Scattering Data. *J. Phys. Chem. B* **124**, 5186 - 5200 (2020).
21. Bolmatov, D., D. Zav'yalov, J.-M. Carrillo and **J. Katsaras**. Fractal Boundaries Underpin the 2D Melting of Biomimetic Rafts. *Biochim. Biophys. Acta* **1862**, 183249 (2020).
22. Marquardt, D., F. A. Heberle, J. Pan, X. Cheng, G. Pabst, T. A. Harroun, N. Kučerka and **J. Katsaras**. The Structures of Polyunsaturated Lipid Bilayers by Joint Refinement of Neutron and X-ray Scattering Data. *Chem. Phys. Lipids* **229**, 104892 (2020).
23. Nickels, J. D., S. Poudel, S. Chatterjee, A. T. Farmer, D. Cordner, S. R. Campagna, R. J. Giannone, R. L. Hettich, D. A. Myles, R. F. Standaert, **J. Katsaras** and J. G. Elkins. Impact of Fatty-Acid Labeling of *Bacillus subtilis* Membranes on the Cellular Lipidome and Proteome. *Front. Microbiol.* **11**, 914 (2020).

24. Bolmatov, D., D. Soloviov, M. Zhernenkov, D. Zav'yalov, E. Mamontov, A Suvorov, Y. Q. Cai, and **J. Katsaras**. Molecular Picture of the Transient Nature of Lipid Rafts. *Langmuir* **36**, 4887 - 4896 (2020).
25. Chakraborty S., M. Doktorova, T. R. Molugu, F. A. Heberle, H. L. Scott, B. Dzikovski, M. Nagao, L. R. Stingaciu, R. F. Standaert, F. Barrera, **J. Katsaras**, G. Khelashvili, M. F. Brown and R. Ashkar. How Cholesterol Stiffens Unsaturated Lipid Membranes. *Proc. Natl. Acad. Sci. USA* **117**, 21896 - 21905 (2020).
26. Simmons, J., J. D. Nickels, M. M. Michalski, M. Grossutti, H. Shamana, C. Stanley, A. L. Schwan, **J. Katsaras** and J. R. Dutcher. Structure, Hydration and Interactions of Native and Hydrophobically Modified Phytoglycogen Nanoparticles. *Biomacromol.* **21**, 4053 (2020).
27. Smith, M. D., S. V. Pingali, J. G. Elkins, D. Bolmatov, R. F. Standaert, J. D. Nickels, V. S. Urban, **J. Katsaras**, B. Davison, J. C. Smith and L. Petridis. Solvent-Induced Membrane Stress in Biofuel Production: Molecular insights from small angle scattering and all-atom molecular dynamics simulations. *Green Chem.* **22**, 8278 – 8288 (2020).
28. Bolmatov, D., J.-M. Y. Carrillo, B. G. Sumpter, **J. Katsaras** and M. O. Lavrentovich. Double Membrane Formation in Heterogeneous Vesicles. *Soft Matter* **16**, 8806 – 8817 (2020).

2019

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16. Pabst, G., N. Kučerka, M.-P., Nieh, G. Pabst, M. C. Rheinstädter and **J. Katsaras**. Applications of Neutron and X-ray Scattering to the Study of Biologically Relevant Model Membranes. *Chem. Phys. Lipids* **163**, 460 - 479 (2010).
17. Atkinson, J., T. A. Harroun, S. R. Wassall, W. Stillwell and **J. Katsaras**. The Location and Behavior of α -Tocopherol in Membranes. *Mol. Nutr. Food Res.* **54**, 641 - 651 (2010).
18. Harroun, T. A., N. Kučerka, M.-P. Nieh and **J. Katsaras**. Neutron and X-ray Scattering for Biophysics and Biotechnology: Examples of Self-Assembled Lipid Systems. *Soft Matter* **5**, 2694 - 2703 (2009).
19. Nieh, M.-P., N. Kučerka and **J. Katsaras**. Spontaneously Formed Unilamellar Vesicles. *In Methods in Enzymology: Liposomes* Vol. 465 Part G. Ed. N. Düzgüneş, pp. 3 - 20 Elsevier, (2009).
20. **Katsaras, J.**, N. Kučerka and M.-P. Nieh. Structure from Substrate Supported Lipid Bilayers. *Biointerphases* **3**, FB55 - FB63 (2008).
21. Kučerka, N., M.-P. Nieh, J. Pencer, T. A. Harroun and **J. Katsaras**. The Study of Liposomes, Lamellae and Membranes Using Scattering Methods. *Curr. Opin. Coll. Inter. Sci.* **12**, 17 - 22 (2007).
22. **Katsaras, J.**, T. A. Harroun, J. Pencer, T. Abraham, N. Kučerka and M.-P. Nieh. Small-Angle Neutron Scattering and Biomolecules. *Physics in Canada* **62**, 233 - 240 (2006).
23. **Katsaras, J.**, T. A. Harroun, J. Pencer and M.-P. Nieh. "Bicellar" Lipid Mixtures as Used in Biochemical and Biophysical Studies: A Mixture of Short- and Long-Chain Phospholipids. *Naturwissenschaften* **92**, 355 - 366 (2005).
24. **Katsaras, J.**, M.-P. Nieh, T. A. Harroun, M. Chakrapani and M. J. Watson. Neutron and X-ray Scattering from Biologically Relevant Materials. *Physics in Canada* **60**, 93 - 100 (2004).
25. Gaulin B. D. and **J. Katsaras**. Neutron Scattering from Soft Hydrogenous Materials. *Physics in Canada* **53**, 247 - 255 (1997).
26. **Katsaras, J.** X-ray Diffraction Studies of Oriented Lipid Bilayers. *Biochem. Cell Biol.* **73**, 209 - 218 (1995).

BOOK CHAPTERS

1. Nickels, J. D. and J. Katsaras. 2019. Combining Experiment and Simulation to Study Complex Biomimetic Membranes. In *Characterization of Biological Membranes – Structure and Dynamics*. Eds. M.-P. Nieh, F. A. Heberle and J. Katsaras pp 515 – 550. De Gruyter (ISBN 978-3-11-054464-0).
2. Nickels, J. D., J. Hogg, D. Corder and **J. Katsaras**. 2019. Lipid Rafts in Bacteria: Structure and Function. In: *Health Consequences of Microbial Interactions with Hydrocarbons, Oils, and Lipids. Handbook of Hydrocarbon and Lipid Microbiology*. Ed. H. Goldfine, Springer (ISBN 978-3-319-72473-7).

3. Nickels, J. D. and J. Katsaras. 2015. Water and Lipid Bilayers. In *Liposomes, Membrane Hydration: The Role of Water in the Structure Function of Biological Membranes*. Ed. E. A. Disalvo pp 45 - 67. Springer – Subcellular Biochemistry Vol. 71. Springer International Publishing AG Switzerland (ISBN 978-3-319-19059-4).
4. Pan, J., N. Kučerka, M.-P. Nieh, P. Drazba, F. A. Heberle and J. Katsaras. 2014. Lipid Diversity and its Implications on Membrane Organization. In *Liposomes, Lipid Bilayers and Model Membranes: From Basic Research to Application*. Eds. G. Pabst, N. Kučerka, M.-P. Nieh and J. Katsaras pp 125 - 142. CRC Press, Boca Raton, FL (ISBN 13: 978-1-4665-0709-8).
5. Pan, J., F. A. Heberle and J. Katsaras. 2013. Small-Angle Neutron Scattering and the Study of Nanoscopic Lipid Membranes. In *Recent Progress in Neutron Scattering*. Eds. A. Vidal and M. Carrizo, pp 77 - 103. Nova Science Publishers, Inc., NY (ISBN 978-1-62948-099-2).
6. Pabst, G., F. A. Heberle and J. Katsaras. 2013. X-ray Scattering of Lipid Membranes. In *Encyclopedia of Biophysics*. Ed. G. C. K. Roberts (European Biophysical Societies' Association [EBSA]) pp. 2785 - 2791.
7. Kučerka, N., T. Harroun and J. Katsaras. 2013. Neutron Scattering of Membranes. In *Encyclopedia of Biophysics*. Ed. G. C. K. Roberts (European Biophysical Societies' Association [EBSA]) pp. 1706 - 1710.
8. Kučerka, N., T. A. Harroun and J. Katsaras. Neutron Scattering of Membranes. In *Encyclopedia of Biophysics*. Ed. G.C.K. Roberts. pp. 1706 - 1710. Springer-Verlag Berlin Heidelberg (DOI 10.1007/978-3-642-16712-6).
9. Pabst, G., F. A. Heberle and J. Katsaras. X-Ray Scattering of Lipid Membranes. In *Encyclopedia of Biophysics*. Ed. G.C.K. Roberts. pp. 2785 - 2791. Springer-Verlag Berlin Heidelberg (DOI 10.1007/978-3-642-16712-6).
10. Kučerka, N., M.-P. Nieh and J. Katsaras. 2010. Small-Angle Scattering from Homogeneous and Heterogeneous Lipid Bilayers. In *Advances in Planar Lipid Bilayers and Liposomes*. Vol. 12. Ed. A. Iglič (Academic Press) pp. 201 - 235.
11. Sur, B., R. B. Rogge, V. N. P. Anghel and J. Katsaras. 2009. Thermal Neutron Holography. In *Neutron Imaging and Applications – Neutron Scattering Applications and Techniques*. Eds. I. S. Anderson, R. L. McGreevy and H. Z. Bilheux, pp 153 - 170 Springer Science and Business Media, LLC.
12. Katsaras, J., J. Pencer, M.-P. Nieh, T. Abraham, N. Kučerka and T. A. Harroun. 2008. Neutron and X-ray Scattering from Isotropic and Aligned Membranes. In *Structure and Dynamics of Membranous Interfaces*. Ed. K. Nag, pp. 107 - 134 John Wiley and Sons, Inc. (ISBN 978-0-470-11631-9).
13. Pencer, J., T. T. Mills, N. Kučerka, M.-P., Nieh and J. Katsaras. 2007. Small-Angle Neutron Scattering to Detect Rafts and Lipid Domains. In *Lipid Rafts*. Ed. T. J. McIntosh, pp. 231 - 244. The Humana Press Inc. (ISBN 13: 978-1-58829-729-7).
14. Harroun, T. A., G. D. Wignall and J. Katsaras. 2006. Principles of Neutron Scattering for Biology. In *Neutron Scattering in Biology - Techniques and Applications*. Eds. J. Fitter, T. Gutberlet and J. Katsaras, pp. 1 - 18. Springer.

15. Katsaras, J., T. A. Harroun, M.-P. Nieh, M. Chakrapani, M. J. Watson and V. A. Raghunathan. 2006. Neutron Scattering from Biomaterials in Complex Sample Environments. In *Neutron Scattering in Biology – Techniques and Applications*. Eds. J. Fitter, T. Gutberlet and J. Katsaras, pp. 107 - 126. Springer.
16. Katsaras, J., and V. A. Raghunathan. 2000. Aligned Model Membrane Systems. In *Lipid Bilayers: Structure and Interactions*. Eds. J. Katsaras and T. Gutberlet, pp. 25 - 45. Springer (ISBN 3-540-67555-8).

EDITOR / CO-EDITOR (Books / Special Issues)

1. Katsaras, J., D. Bolmatov and M. O. Lavrentovich. 2020. "Lateral Membrane Heterogeneity" *Chem. Phys. Lipids* Vol. 233.
2. Nieh, M.-P., F. A. Heberle and J. Katsaras. 2019. "Characterization of Biological Membranes – Structure and Dynamics". De Gruyter (ISBN 978-3-11-054464-0).
3. Katsaras, J., F. A. Heberle and D. A. A. Myles. 2015. "ORNL Workshop on Biomembranes". *Chem. Phys. Lipids* Vol. 192.
4. Pabst, G., N. Kučerka, M.-P. Nieh and J. Katsaras. 2014. "Liposomes, Lipid Bilayers and Model Membranes: From Basic Research to Application". CRC Press (ISBN 978-1466507098).
5. Katsaras, J. 2006. "Neutron and X-ray Scattering at Major Facilities". *Physics in Canada*, Vol. 62 No. 5, September/October.
6. Fitter, J., T. Gutberlet and J. Katsaras. 2006. "Neutron Scattering in Biology – Techniques and Applications". *Biological Physics Series*. Springer (ISBN 3-540-29108-3).
7. Katsaras, J., and J.H. Davis. 2004. "Biological Physics". *Physics in Canada*, Vol. 60 No. 2, March/April.
8. Katsaras, J., and T. Gutberlet. 2001. "Lipid Bilayers: Structure and Interactions". *Biological Physics Series*. Springer (ISBN 3-540-67555-8).

NON-REFEREED PUBLICATIONS (Tech. Reports / Trade Magazines)

1. Rafuse, K., A. Mclvor, E. Cassidy, J. Katsaras and D. Banks. An International Review of Selected Research Reactors and Neutron Spallation Sources. *CNBC-2008-1* (2008).
2. Katsaras, J. Neutron Studies of Aligned, Biomimetic Soft Materials. *Neutron News* 14, 24 - 27 (2003).
3. Katsaras, J., and R. B. Rogge. A Case for a Two-Dimensional Neutron Imaging Plate Detector. *NPMR-2001-2* (2001).
4. Katsaras, J. Sixth Biennial Summer School on Neutron Scattering held at Chalk River. *Neutron News* 12, 3 - 4 (2001).
5. Root, J. H., J. Katsaras, J. H. Fox and B. W. Leitch. Stress Relaxation in Compact Tension Specimens – Non-Irradiated and Pre-Irradiated Zr - 2.5 Nb. *COG-99-016-1* (1999).
6. Katsaras, J. Full Hydration of Aligned Lipid Multilayer Films from Water Vapour. *CINEWS* 18, 12 - 15 (1998).

7. Root, J. H., J. Katsaras and J. H. Fox. Stress Relaxation in Compact Tension Specimens – Non-Irradiated and Pre-Irradiated Zr - 2.5 Nb. *NPMR-ANDI-120* (1998).
8. Rogge, R. B., and J. Katsaras. Evaluation of ANDI Detector Shield and Monochromator Test: Signal Optimization for Stress Relaxation Experiments. *NPMR-ANDI-114* (1998).
9. Katsaras, J., and J. H. Root. Stress Relaxation Near Blunt Notches. *COG-97-208* (1997).
10. Katsaras, J. A Model for the Subgel Phase of Phosphorylcholine Bilayers. *CINEWS* 16, 6 - 7 (1996).
11. Buyers, W. J. L., J. Katsaras, W. Mellors, M. M. Potter, B. M. Powell, R. B. Rogge, J. H. Root, D. C. Tennant, Z. Tun, R. M. Epan and B. D. Gaulin. A National Facility for Small-Angle Neutron Scattering. *AECL 114* 62 (1996).

ARTICLES SUBMITTED / IN PREPARATION

1. Scott, H. L., V. Burns-Casamayor, A. C. Dixson, R. F. Standaert, C. B. Stanley, L. R. Stingaciu, J. M. Carrillo, B. G. Sumpter, **J. Katsaras**, W. Qiang, F. A. Heberle, B. Mertz, R. Ashkar and F. N. Barrera. Membranes Dynamically Respond to Changes in Protein Conformation.
2. Liu, Z., L. Lin, T. Li, K. Hong, Y.-Z. Ma, R. L. Sacci, J. Katsaras, J.-M. Carrillo, B. Doughty and C. P. Collier. Physical and Chemical Control of the Solvation of Charged Amphiphilic Oligomers and Quasi-2D Assemblies at Air-Aqueous Interfaces.

INVITED TALKS

2022

1. "Neutron Scattering and Biological Membranes", Okanagan Biophysics Conference 2020. Virtual. October 22.
2. "Molecular Structures of Biological Membranes", Department of Physics, Virginia Polytechnic Institute and State University, Blacksburg, VA, United States. October 21.
3. "A Biophysicist's Experience in a Biochemistry Lab", The Richard Eband Symposium – Molecular Events at the Membrane Interface, Hamilton, ON, Canada. Virtual. July 6.
4. "Neutrons, Biological Membranes, and Future Directions", American Conference on Neutron Scattering, Boulder, CO, United States. June 5 - 9. (ACNS Sustained Research Prize Speaker)
5. "Molecular Structures of Biological Membranes: a scattering-based journey through time", International Conference on Neutron Scattering (ICNS), Buenos Aires, Argentina. August 21 – 25. (Plenary Speaker).
6. "A Biophysicist's Experience in a Biochemistry Lab", The Richard Eband Symposium – Molecular Events at the Membrane Interface, Hamilton, ON, Canada. July 6.
7. "Neutrons, Biological Membranes, and Future Directions", American Conference on Neutron Scattering, Boulder, CO, United States. June 5 - 9. (ACNS Sustained Research Prize Speaker)

2021

8. "Membrane Lateral Heterogeneity", SwedNess Graduate Course Lecture for "Neutrons in Life Science and Biomaterials". Lund Institute of Advanced Neutron and X-Ray Science. Virtual. June 17.
9. "Membrane Structure and Mechanical Properties Determined using Combined Neutron Scattering, Molecular Dynamics, and Deuteration Schemes", Department of Chemistry and Biochemistry, University of Windsor, Windsor, ON, Canada. March 3.

2020

10. "Application of Neutrons to Model and Viable Biological Membranes", Technical University of Munich – MLZ/FRMII, Munich, Germany. June 29.
11. "Deuterium, Neutrons and Biological Membranes", Telluride Science Summer Lecture Series. Telluride Science Research Center, Telluride, CO, United States. June 25.
12. "Static and Dynamic Structures of Model and Functional Biological Membranes", Bredesen Center, University of Tennessee, Knoxville, TN, United States. January 9.

2019

13. NSF Workshop on "Liquid Interfaces", Advanced Photon Source, Argonne National Laboratory, Chicago, IL, United States. November 21 -22.
14. Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, TN, United States. November 5.
15. Institute of Organic and Biomolecular Chemistry, Georg-August-Universität Göttingen, Göttingen, Germany. July 11.

16. The 7th Soft Matter Summer School: Soft Matter and Slow Relaxation Dynamics. Ulsan National Institute of Science and Technology, Ulsan, South Korea. June 24 - 28.
17. Department of Polymer Science and Engineering, University of Massachusetts, Amherst, MA, USA. May 16.

2018

18. Louisiana Consortium for Neutron Scattering, Louisiana State University, Baton Rouge, LA, United States. November 12.
19. Oak Ridge Institute for Continued Learning, Roane State Community College, Oak Ridge Campus, Oak Ridge, TN, United States. October 12.
20. Department of Physics, Brock University, St. Catharines, ON, Canada. October 2.
21. Workshop on “Dynamics of Membranes and their Constituents”, Lund Institute of Advanced Neutron and X-ray Science. Lund, Sweden. September 12 -14. (Keynote Speaker)
22. Annual Meeting of the American Crystallographic Association, Toronto, ON, Canada. July 20 - 24.
23. Workshop on “Complexity in the Chemistry and Physics of Lipid Membranes”. Telluride Science Research Center, Telluride, CO, United States. July 9 – 13.
24. International Workshop on “Status and Perspectives in Research on Membrane Structure and Interaction - Membranes Beyond”. Hamilton, ON, Canada. July 2 - 4. *Note: workshop was organized in honor of John Katsaras’ 60th birthday and to celebrate his and his group’s scientific achievements.*
25. 8th Taiwan-Japan Joint Meeting on Neutron and X-ray Scattering. National Central University, Taoyuan City, Taiwan. March 14 - 18. (Keynote Speaker)
26. Department of Chemical Engineering, National Tsing Hua University, Hsinchu, Taiwan. March 13.
27. Department of Chemical Engineering National Taiwan University, Taipei, Taiwan. March 12.
28. Workshop on “Synergy of Neutron and X-Ray Contrast Methods for Studying Soft Materials and Biological Systems. Oak National Laboratory, Oak Ridge, TN, United States. February 27 - 28.
29. Gordon Research Conference on the Biochemistry, Biophysics and Physiology of Glycolipids and Sphingolipid Biology. Galveston, TX, United States. February 16.
30. Department of Physics and Astronomy, University of Waterloo, Waterloo, ON, Canada. January 16.

2017

31. Department of Physics, Lakehead University, Thunder Bay, ON, Canada. November 3.
32. Gordon Research Conference on Neutron Scattering. “Structure and Dynamics of Materials on Many Length and Time Scales”. Hong Kong, China. August 6 - 11.

33. 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.
34. 8th Neutrons in Structural Biology Workshop. Shull Wollan Center, Oak Ridge, TN, United States. June 5 - 9.
35. Keystone Symposium on “Lipidomics and Bioactive Lipids in Metabolism and Disease”, Tahoe City, CA, United States. February 26 – March 3.

2016

36. Department of Molecular Physiology and Biological Physics, University of Virginia, Charlottesville, VA, United States. December 12.
37. University of Tennessee Medical Center, Knoxville, TN, United States. November 22.
38. Brockhouse Institute for Materials Research, McMaster University, Hamilton, ON, Canada. November 14.
39. 7th Annual Nano Ontario Conference on “Nanobio and Sustainability”, Guelph, ON, Canada. November 10 – 11. (Keynote Speaker)
40. Department of Physics, University of Guelph, Guelph, ON, Canada. November 8.
41. Institute of Molecular Biology and Biochemistry, University of Waterloo, Waterloo, ON, Canada. November 4.
42. Workshop on “Synchrotron and Neutron Scattering in Biomaterials and Soft Matter”. Malmö, Sweden. October 26 – 28. (Plenary Speaker)
43. Moderna Therapeutics, Cambridge, MA, United States. October 4.
44. Department of Chemistry and Biochemistry, Concordia University, Montreal, QC, Canada. September 16.
45. Department of Chemistry and Biochemistry, Concordia University, Montreal, QC, Canada. September 15.
46. 5th International Symposium on Diffraction Structural Biology, Knoxville, TN, United States. August 7 – 10.
47. American Conference on Neutron Scattering, Long Beach, CA, United States. July 10 – 14.
48. Workshop on “Complexity in the Chemistry and Physics of Lipid Membranes”, Telluride Science Research Center, Telluride, CO, United States. July 4 - 8.
49. 3rd International Conference on Small Angle Neutron Scattering in Dubna. Dubna, Russia. June 6 – 9. (Keynote Speaker)
50. 2nd Annual Meeting of the Biophysical Society of Canada. Winnipeg, MB, Canada. June 1 – 3. (Keynote Speaker)
51. University of Toronto, Department of Chemical and Physical Sciences, Mississauga, ON, Canada. March 8.

52. University of Western Ontario, Department of Physics and Astronomy, London, ON, Canada. March 3.
53. University of Calgary, Centre for Molecular Simulation and Biochemistry, Calgary, AB, Canada. February 9.

2015

54. Louisiana State University, Department of Chemistry, Baton Rouge, LA, United States. December 4.
55. XLIV Annual Meeting of the Biophysical Society of Argentina. Santiago del Estero, Argentina. November 4 – 6.
56. Workshop on "Water, Membrane Structure and Biological Significance". Santiago del Estero, Argentina. November 1 – 4. (Plenary Speaker)
57. 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.
58. University of Connecticut, Institute of Materials Science, Storrs, CT, United States. September 25.
59. 61st Benzon Symposium on "Structural Biology on the Move". Copenhagen, Denmark. August 24 – 27, 2015. (Plenary Speaker)
60. Tulane University, Department of Chemical and Biomolecular Engineering. New Orleans, LA, United States. April 10.
61. 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.
62. University of Tennessee, Department of Chemical and Biomolecular Engineering, Knoxville, TN, United States. March 10.
63. Workshop on "Mechanistic Studies in Membrane Biophysics: Experiments and Theory". Telluride Science Research Center, Telluride, CO, United States. March 2 – 6.
64. University of California, Santa Barbara, Department of Biomolecular Science and Engineering, Santa Barbara, CA, United States. January 21.
65. University of California, Irvine, Department of Chemistry, Irvine, CA, United States. January 20.

2014

66. 3rd International Technical Meeting on Small Reactors, "Application of Research Reactors and Small Modular Reactors", Ottawa, ON, Canada. November 5 – 7.
67. Atomic Energy of Canada Limited, Computational Reactor Physics, Chalk River, ON, Canada. October 14.
68. University of South Florida, Department of Physics, Tampa Bay, FL, United States. September 19.
69. International Workshop on "Biomembranes - From Fundamentals to Applications". CSC – IT Center for Science, Helsinki/Espoo, Finland. August 19 – 22.

70. 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)
71. Translational Medicine Symposium, Oak Ridge National Laboratory, Oak Ridge, TN, United States. April 11.
72. Department of Physics and Astronomy, University of Delaware, Newark, DE, United States. April 8.
73. Membrane Structure and Assembly, Biophysical Society Subgroup, 58th Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 15.

2013

74. University of Tennessee, Department of Physics and Astronomy, Knoxville, TN, United States. December 2.
75. 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.
76. Oak Ridge National Laboratory, Materials Science and Technology Division, Physical Science Directorate, Oak Ridge, TN, United States. September 13.
77. SHUG-CNMS User Meeting, Oak Ridge, TN, United States. August 12 – 15.
78. 3rd Annual Neutron Scattering for Novices Workshop, Joint Institute for Neutron Sciences, Oak Ridge, TN, United States. June 17 - 18.
79. 12th Canadian Neutron Summer School, Chalk River, ON, Canada. June 2 – 7.
80. * Workshop on “Frontiers of Hybrid Medical Imaging”. University of Saskatchewan, Saskatoon, SK, Canada. May 16. (Plenary Speaker)
81. Continuing Medical Education Day – Medical Imaging, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, SK, Canada. May 15.
82. University of Tennessee, Department of Biochemistry, Cellular and Molecular Biology, Knoxville, TN, United States. May 9.
83. University of Toronto, Department of Chemistry, Toronto, ON, Canada. April 29.
84. University of Guelph, Department of Physics, Guelph, ON, Canada. April 26.
85. McMaster University, Department of Physics, Hamilton, ON, Canada. April 24.
86. Brock University, Department of Physics, St. Catharines, ON, Canada. April 23.
87. National Research Council, Canadian Neutron Beam Centre, Chalk River, ON, Canada. January 4.

2012

88. Symposium in Honor of Peter Laggner. Austrian Academy of Sciences, Institute of Biophysics and Nanosystems Research, Graz, Austria. October 19.

89. Technical University of Graz, Department of Physics, Graz, Austria. October 18.
90. Helmholtz-Zentrum Berlin, Berlin, Germany. October 16.
91. Workshop on "Next Generation of Materials using Neutrons". Jawaharlal Nehru Center for Advanced Scientific Research (JNCASR), Bangalore, India. September 6 - 7.
92. Canadian Nuclear Society/Deep River Science Academy, Deep River, ON, Canada. July 26.
93. 3rd Graduate Course on Neutron Scattering Applications in Structural Biology. Oak Ridge National Laboratory, Oak Ridge, TN, United States. June 4 - 8.
94. 2nd Annual Neutron Scattering for Novices Workshop. Joint Institute for Neutron Sciences, Oak Ridge, TN, United States. May 16.

2011

95. National Research Council, Canadian Neutron Beam Centre, Chalk River, ON, Canada. December 21.
96. Sigma Pi Sigma Honor Society Lecture. Department of Physics, Villanova, PA, United States. December 2. (Keynote Speaker)
97. National Institute of Standards and Technology, Biomedical Science Division, Gaithersburg, MD, United States. November 3.
98. Rensselaer Polytechnic Institute, Chemical and Biological Engineering, Troy, NY, United States. November 1.
99. Illinois Institute of Technology, Pritzker Institute of Biomedical Science and Engineering, Chicago, IL, United States. October 28.
100. Illinois Institute of Technology, Department of Physics, Chicago, IL, United States. October 27.
101. Canadian Nuclear Society/Deep River Science Academy, Deep River, ON, Canada. July 28.
102. 2nd Neutrons in Structural Biology Symposium, ORNL, Oak Ridge, TN, United States. May 23.
103. 11th Canadian Neutron Summer School, Chalk River, ON, Canada. May 8 – 13.
104. Materials Research Society, Spring Meeting, San Francisco, CA, United States. April 25 – 29.
105. University of Connecticut, Institute of Materials Science, Storrs, CT, United States. April 22.
106. University of Delaware, Chemical Engineering, Newark, DE, United States. April 20.
107. Indiana University-Purdue University Indianapolis, Department of Physics, Indianapolis, IN, United States. April 14.
108. BILL2011 - Bilayers at the ILL, Grenoble, France. January 12 – 14.

2010

109. Australian Nuclear Science and Technology Organisation (ANSTO), Bragg Institute, Sydney, Australia. November 5.

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

2009

114. Memorial University, Faculty of Medicine, St. John's, NL, Canada. November 6.
115. Memorial University, Department of Physics, St. John's, NL, Canada. November 5.
116. Cornell University, Department of Molecular Biology and Genetics, Ithaca, NY, United States. October 28.
117. Oak Ridge National Laboratory, Oak Ridge, TN, United States. September 10.
118. Neutrons in Biology 2009, Lund, Sweden. June 22 – 24.
119. Canadian Neutron Beam Centre's Neutron Summer School, Chalk River, ON, Canada. June 15 – 18.
120. Canadian Association of Physicists. Moncton, NB, Canada. June 7 – 10.
121. University of Guelph, Department of Physics, Guelph, ON, Canada. February 10.

2008

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

2007

127. University of Toronto, Faculty of Pharmacy, Toronto, ON, Canada. December 14.
128. Université du Québec à Montréal, Department of Chemistry, Montreal, PQ, Canada. November 12.
129. AVS 54th International Symposium and Exhibition, Seattle, WA, United States. October 14 – 17.
130. Chemical Biophysics Symposium, University of Toronto, Toronto, ON, Canada. April 20 – 22. (Keynote Speaker).
131. Paul Scherrer Institut, Villigen, Switzerland. March 13.

132. Austrian Academy of Sciences, Institute of Biophysics and Nanosystems Research, Graz, Austria. March 5.
133. 5th European Winter School on Neutron and Synchrotron Radiation, Plannersalm, Austria. March 5 – 9.

2006

134. 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.
135. Carleton University, Department of Chemistry, Ottawa, ON, Canada. November 27.
136. Imaging and Neutrons 2006, Spallation Neutron Source, Oak Ridge National Laboratory, Oak Ridge, TN, United States. October 23 – 25.
137. Brock University, Department of Physics, St. Catharines, ON, Canada. February 21.

2005

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

2004

148. Frontiers of Synchrotron and X-ray Scattering, McMaster University, Hamilton, ON, Canada. December 3 - 4.
149. Centre for Food and Soft Materials Science, University of Guelph, Guelph, ON, Canada. April 29.
150. Cornell University, Department of Molecular Biology and Genetics, Ithaca, NY, United States. April 14.
151. American Physical Society, Annual March Meeting, Division of Biological Physics, Montreal, QC, Canada. March 22 - 26.

152. Canadian Light Source Inc., University of Saskatchewan, SK, Canada. March 12.

153. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. March 11.

2003

154. Lakehead University, Department of Physics, Thunder Bay, ON, Canada. October 3.

155. 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.

156. National Research Council, Institute of Biological Sciences, Ottawa, ON, Canada. July 9.

157. Yale University, Department of Physiology, Hartford, CT, United States. May 12.

2002

158. University of Guelph, Department of Physics, Guelph, ON, Canada. November 19.

159. University of Oxford, Department of Biochemistry, Oxford, UK. September 19.

160. ISIS, Rutherford-Appleton Laboratory, Chilton, UK. September 18.

161. 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.

162. Canadian Nuclear Society, Toronto, ON, Canada. April 25.

163. University of Ottawa, Department of Physics, Ottawa, ON, Canada. April 10.

164. Joint Institute for Neutron Sciences: Using Neutrons to Probe Structure and Dynamics of Biological Systems, Oak Ridge, TN, United States. April 8 - 9.

165. Canadian Nuclear Society, Deep River, ON, Canada. March 19.

2001

166. Institut Laue-Langevin, Grenoble, France. July 12.

167. Institut Européen de Chimie et Biologie, Pessac, France. June 29.

2000

168. Université de Montréal, Department of Chemistry, Montreal, QC, Canada. November 22.

169. Canadian Institute of Neutron Scattering, Annual General Meeting. Montreal, QC, Canada. October 27 – 28.

170. 2nd Annual NRC-Wide Research Forum, Magog, QC, Canada. April 18 – 20.

171. Hahn-Meitner Institute, Berlin, Germany. March 24.

172. University of Munich, Department of Physics and Center for Nanoscience, Munich, Germany. March 21.

173. University of Basel, Biocenter, Basel, Switzerland. March 17.

174. Austrian Academy of Sciences, Institute of Biophysics and X-ray Structure Research, Graz, Austria. March 15.
175. IBR-ELETTRA, Trieste, Italy. March 13.

1999

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

1998

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

1997

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

1996

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

1995

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

1994

196. Universität Leipzig, Department of Physics, Leipzig, Germany. July 13.
197. University of Regina, Department of Physics, Regina, SK, Canada. February 25.
198. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. February 21.
199. University of Saskatchewan, Department of Physics, Saskatoon, SK, Canada. February 18.
200. Université Laval, Department of Chemistry, Quebec City, QC, Canada. February 14.
201. University of Guelph, Department of Physics, Guelph, ON, Canada. January 25.
202. University of Toronto, Department of Medical Biophysics, Toronto, ON, Canada. January 19.
203. AECL Research, Neutron and Condensed Matter Science, Chalk River, ON, Canada. January 10.
204. McMaster University, Department of Biochemistry, Hamilton, ON, Canada. January 3.

1986 – 1993

205. Centre National de la Recherche Scientifique, Pessac, France (1993).
206. Los-Angeles - Bordeaux Club, Bordeaux, France (1993).
207. 1st BHT Crystallographic Workshop, McMaster University, Hamilton, ON, Canada (1992).
208. Concordia University, Department of Physics, Montreal, QC, Canada (1990).
209. Atomic Energy of Canada Limited, Chalk River Nuclear Laboratories, Division of Neutron and Solid-State Physics, Chalk River, ON, Canada (1990).
210. Ohio State University, Department of Chemistry, Columbus, OH, United States. (1990).
211. McGill University, Department of Physics, Montreal, QC, Canada (1986).

CONFERENCE CONTRIBUTIONS

2022

1. Sacci, R. L., H. L. Scott, Z. Liu, D. Bolmatov, C. P. Collier and J. Katsaras. Using Dynamic Impedance Spectroscopy to Deconvolute Memory Elements in Droplet Interface Bilayers. 241st Electrochemical Society Meeting. Vancouver, BC, Canada. May 29 - June 2, 2022.
2. Kumarage, T., W. Borden, H. Scott, J. Katsaras and R. Ashkar. Sterol Conjugated Lipids for Improved Liposomal Stability. APS March Meeting. Chicago, IL. United States. March 14 - 18, 2022.

3. Scott, H. L., V. Burns, J. Katsaras, A. C. Dixon, W. Qiang, F. A. Heberle, B. Mertz, R. Ashkar, and F. N. Barrera. The pHLIP Peptide Slows Down Membrane Thickness Fluctuations. 66th Annual Meeting of the Biophysical Society. Virtual. February 19 - 23, 2022.
4. Kumarage, T., W. Borden, J. Katsaras, H. L. Scott and R. Ashkar. Replacing Cholesterol with Sterol Modified Lipids Results in Improved Liposomal Stability. 66th Annual Meeting of the Biophysical Society. Virtual. February 19 - 23, 2022.
5. Kinnun, J. J., H. L. Scott, M. Melesse, B. Doughty, J. Labbe, P. Collier and J. Katsaras. Amantadine Preferential Binding and Disorder of Phase Separated Membranes. 66th Annual Meeting of the Biophysical Society. Virtual. February 19 - 23, 2022.
6. Scott, H. L., D. Bolmatov, J. J. Kinnun, B. Doughty, J. M. Carillo, P. Collier and J. Katsaras. Heavy Water Influences Memcapacitance Behavior of Droplet Interface Bilayers. 66th Annual Meeting of the Biophysical Society. Virtual. February 19 - 23, 2022.

2021

7. Kumarage, T., J. F. Ankner, M. Phan, J. Katsaras and R. Ashkar. Biophysical Effects of Melatonin and Azithromycin on Model Pulmonary Membranes. APS March Meeting 2021. Virtual. March 15 - 19, 2021.
8. Lamichhane, T., T. Charlton, B. Andrews, A. Pathak, M. Doucet, V. Lauter, J. Katsaras, B. Post and M. Paranthaman. Demonstration of Additively Manufactured NdFeB PPS Halbach Magnets to Generate Variable Magnetic Fields for Neutron Reflectometry. APS March Meeting 2021. Virtual. March 15 - 19, 2021.
9. Kumarage, T., J. F. Ankner, M. Phan, J. Katsaras and R. Ashkar. The Effect of Melatonin and Azithromycin on Model Pulmonary Membranes. 65th Annual Meeting of the Biophysical Society. Virtual. February 22 - 26, 2021.
10. Simmons, J., J. Nickels, M. Grossutti, H. Shamana, C. Stanley, J. Katsaras and J. Dutcher. Hairy Particle Morphology of Dendritic Phytoglycogen Nanoparticles Revealed by Hydrophobic Modification. APS March Meeting 2021. Virtual. March 15 - 19, 2021.

2020

11. Nickels, J. D., F. A. Heberle and J. Katsaras. Using Deuterium to Determine the Nanoscale Structure of Biomembranes. American Conference on Neutron Scattering (ACNS). July 13 - 16, 2020.
12. Atkinson, J., J. Nickels, M. Michalski, M. Grossutti, A. Schwan, J. Katsaras and J. Dutcher. Structure of Native and Hydrophobically Modified Phytoglycogen Nanoparticles using Small Angle Neutron Scattering. American Physical Society Meeting. Denver, CO, United States. March 2 - 6, 2020.
13. Chakraborty, S., T. R. Molugu, M. Doktorova, F. A. Heberle, H. L. Scott, E. G. Kelley, M. Nagao, B. G. Dzikovski, R. F. Standaert, F. N. Barrera, J. Katsaras, G. Khelashvili, M. F. Brown and R. Ashkar. Stiffening of Phosphatidylcholine Membranes by Cholesterol. 64th Annual Meeting of the Biophysical Society. San Diego, CA, United States. February 15 - 19, 2020.
14. Hutchison, J., K.-C. Shih, G. Pantelopulos, H. Harrington, K. Mittendorf, H. Scheidt, S. Qian, S. Collier, M. Chambers, D. Huster, J. Katsaras, R. L. McFeeters, J. E. Straub, M.-P. Nieh and C. Sanders. Highly Dynamic C99 Oligomeric Structure in Cholesterol and Sphingomyelin Rich Bicelles. 64th Annual Meeting of the Biophysical Society. San Diego, CA, United States. February 15 - 19, 2020.

15. Chakraborty, S., J.-M. Y. Carrillo, E. G. Kelley, F. A. Heberle, J. Katsaras, B. G. Sumpter, M. Nagao and R. Ashkar. Hierarchical Membrane Dynamics in Phase-Separated Model Membranes. 64th Annual Meeting of the Biophysical Society. San Diego, CA, United States. February 15 - 19, 2020.

2019

16. Ashkar, R., M. Doktorova, F. Heberle, H. Scott, E. Kelley, M. Nagao, R. Usery, F. Barrera, J. Katsaras, G. Feigenson and G. Khelashvili. Effect of Cholesterol on DOPC Lipids Membranes. 257th American Chemical Society National Meeting and Exhibition. Orlando, FL, United States. March 31 – April 4, 2019.
17. Bolmatov, D., M. Lavrentovich and J. Katsaras. Morphogenesis of Lipid Domains in the Presence of Melatonin. 257th American Chemical Society National Meeting and Exhibition. Orlando, FL, United States. March 31 – April 4, 2019.
18. Carrillo, J.M., D. Bolmatov, M. Lavrentovich, J. Katsaras and B. Sumpter. From Lipid Vesicles to Lipid Onions: A Molecular-Dynamics Simulation Study. 257th American Chemical Society National Meeting and Exhibition. Orlando, FL, United States. March 31 – April 4, 2019.
19. Doktorova, M., F. Heberle, D. Marquardt, R. Rusinova, L. Sanford, T. Peyear, J. Katsaras, G. Feigenson, H. Weinstein and O. Andersen. Gramicidin Increases Lipid Flip-Flop in Symmetric and Asymmetric Lipid Vesicles. 257th American Chemical Society National Meeting and Exhibition. Orlando, FL, United States. March 31 – April 4, 2019.
20. Scott, H., F. Heberle, J. Katsaras and F. Barrera. PS Membrane Asymmetry Influences the Folding and Insertion of a Transmembrane Helix. 257th American Chemical Society National Meeting and Exhibition. Orlando, FL, United States. March 31 – April 4, 2019.
21. Ashkar, R., M. Doktorova, F. A. Heberle, H. Scott, E. Kelley, M. Nagao, R. Usery, F. N. Barrera, G. W. Feigenson and J. Katsaras. Cholesterol Affects the Bending Rigidity of DOPC Membranes. 63rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. March 2 - 6, 2019.
22. Dorrell, M., F. A. Heberle, J. Katsaras and E. Lyman. Nanoscale Structure of Lipid Bilayers Revealed by In-Silico and Experimental Small Angle Neutron Scattering. 63rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. March 2 - 6, 2019.
23. Scott, H. L., F. A. Heberle, J. Katsaras and F. N. Barrera. PS Membrane Asymmetry Influences the Folding and Insertion of a Transmembrane Helix. 63rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. March 2 - 6, 2019.
24. Heberle, F. A., M. DiPasquale, T. Deering, M. Kester, J. Katsaras and D. Marquardt. The Role of Ceramide Structure in Regulating the Stability of Membrane Domains. 63rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. March 2 - 6, 2019.
25. Yeliseev, A., J. D. Nickels, K. G. Hines, L. Zoubak, W. E. Teague, D. L. Lynch, D. P. Hurst, K. L. Weiss, J. Katsaras, P. H. Reggio and K. Gawrisch. Cannabinoid Receptor CB2 Oligomerization in a Lipid Matrix. 63rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. March 2 - 6, 2019.
26. Atkinson, J., J. Nickels, M. Michalski, A. Schwan, J. Katsaras and J. Dutcher. Structure of Hydrophobically Modified Phytoglycogen Nanoparticles using Small Angle Neutron Scattering. APS March Meeting 2019. Boston, MA, United States. March 4 - 8, 2019.

2018

27. Dorrell, M., F. Heberle, J. Katsaras, E. Lyman and A. Sodt. Nanoscale Structure of Lipid Bilayers Revealed by In-Silico and Experimental Small Angle Neutron Scattering. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
28. Eicher, B., D. Marquardt, F. A. Heberle, I. Letofsky-Papst, J. Katsaras and G. Pabst. Curvature-Mediated Transmembrane Coupling in Asymmetric Lipid Vesicles. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
29. Weitzer, A., J. Katsaras and F. A. Heberle. Cyclodextrin-Mediated Lipid Exchange Monitored by FRET. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
30. Taylor, G. J., F. A. Heberle, J. Katsaras, C. P. Collier and S. A. Sarles. Capacitive Detection of Low-Enthalpy, Higher-Order Phase Transitions in Synthetic and Natural Lipid Membranes. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
31. Scott, H. L., R. Ashkar, F. A. Heberle, R. F. Standaert, J. Katsaras and F. N. Barrera. Neutron Spin Echo Detects Effects of the pH-Low Insertion Peptide on Membrane Thickness Fluctuations. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
32. Soubias, O., J. D. Nickels, A. Yeliseev, K. G. Hines, W. E. Teague, J. Northup, J. Katsaras and K. Gawrisch. G Protein-GPCR Interaction Studied by SANS. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
33. Doktorova, M., F. A. Heberle, B. Dzikovski, S. Chandrasekaran, J. Katsaras, G. Feigenson and H. Weinstein. Interleaflet Coupling in Asymmetric Membranes: Protocols and Revelations. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.
34. Doktorova, M., F. A. Heberle, D. Marquardt, R. Rusinova, L. Sanford, T. Peyear, J. Katsaras, G. Feigenson and O. S. Andersen. Gramicidin Increases Lipid Flip-Flop in Symmetric and Asymmetric Lipid Vesicles. 62nd Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 17 - 21, 2018.

2017

35. 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.
36. 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.
37. 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.
38. 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.

39. 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.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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

49. 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.

50. 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.
51. 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

52. 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.
53. 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.
54. Nickels, J., M. Ohl, X. Cheng, F. Heberle, C. Stanley, M. Feygenon, 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.
55. 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.
56. 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 the Biophysical Society. Baltimore, MD, United States. February 7 - 11.
57. 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.
58. 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

59. Marquardt, D., J. A. Williams, N. Kučerka, J. Atkinson, 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.
60. 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.
61. 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.

62. 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.
63. 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.
64. 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.
65. 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.
66. 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.
67. 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

68. 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.
69. 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.
70. 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.
71. 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.
72. 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.

73. 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.
74. 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.
75. 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.
76. 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.
77. 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.
78. 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.
79. 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.
80. 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

81. 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.
82. 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.
83. 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.
84. Heberle, F.A., R. Petruzielo, J. Pan, P. Drazba, N. Kučerka, 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.

85. 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.
86. 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.
87. 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

88. 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

89. 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.
90. 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

91. 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.
92. 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.
93. 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.
94. 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.
95. 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.
96. 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

97. 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.
98. 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.
99. 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.
100. 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.
101. 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.
102. 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.
103. 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.
104. 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.
105. 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.
106. 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

107. 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.
108. 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.

109. 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.
110. 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.
111. 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.
112. 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.
113. 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.
114. 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.
115. 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.
116. 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

117. 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.
118. 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.
119. 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.
120. 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.
121. 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.

122. 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.
123. 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.
124. 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.
125. 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.
126. 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

127. 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.
128. 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.
129. 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.
130. 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.
131. 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.
132. 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

133. 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.
134. 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.

135. 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.
136. 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.
137. 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.
138. 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.
139. 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.
140. 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.
141. 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.
142. 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

143. 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.
144. 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.
145. 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.
146. 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.
147. 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.

148. Nieh, M.-P., V. A. Raghunathan, C. J. Glinka, H. Wang and J. Katsaras. A Metastable Aligned Lamellar Phase, Populated with Defects Lying on a Two-Dimensional Lattice and Induced by Macroscopic Confinement. 47th Annual Meeting of the Biophysical Society. San Antonio, TX, United States. March 1 - 5.
149. Pozo-Navas, B., G. Pabst, V. A. Raghunathan, J. Katsaras and K. Lohner. Unbinding Transition of Phosphatidylethanolamine/Phosphatidylglycerol Lipid Mixtures. 47th Annual Meeting of the Biophysical Society. San Antonio, TX, United States. March 1 - 5.

2002

150. Sur, B., R. B. Rogge, R. P. Hammond, V. N. P. Anghel and J. Katsaras. Thermal Neutron Holography. American Conference on Neutron Scattering. Oak Ridge, TN, United States. June 23 - 27. [Invited].
151. Sur, B., R. B. Rogge, R. P. Hammond, V. N. P. Anghel and J. Katsaras. Atomic Structure Holography Using Thermal Neutrons. Canadian Association of Physicists. Quebec City, QC, Canada. June 2 - 5. [Invited].
152. Pabst, G., V. A. Raghunathan and J. Katsaras. Enhancement of Steric Repulsion with Temperature in Oriented Lipid Multibilayers. 46th Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February 23 - 27.

2001

153. Pabst, G., M. Rappolt, H. Amenitsch, J. Katsaras and P. Laggner. Revisiting Critical Swelling of Phospholipid Bilayers. 45th Annual Meeting of the Biophysical Society. Boston, MA, United States. February 17 - 21.
154. Liu, Y., Y. Lyatskaya, S. Tristram-Nagle, J. Katsaras and J.F. Nagle. New Method Using Diffuse X-ray Scattering to Obtain Structure and Interactions of Fully Hydrated, L_α Phase Lipid Bilayers. 45th Annual Meeting of the Biophysical Society. Boston, MA, United States. February 17 - 21.
155. Katsaras, J., P. C. Mason, J. F. Nagle and R. M. Epand. Anomalous Swelling in Phospholipid Bilayers is not coupled to the Formation of a Ripple Phase. 45th Annual Meeting of the Biophysical Society. Boston, MA, United States. February 17 - 21.

2000

156. Gutberlet, T., T. Hauss and J. Katsaras. Neutron Diffraction Studies of Fully Hydrated Phospholipid Bilayer Structure. 3rd European Biophysics Congress. Munich, Germany. September 9 - 13.
157. Sengupta, K., V. A. Raghunathan and J. Katsaras. Novel Structural Features of the Ripple Phase of Phospholipids. Canadian Association of Physicists. Toronto, ON, Canada, June 4 - 7.
158. Mason, P. C., R. M. Epand, B. D. Gaulin and J. Katsaras. Interfacial Morphologies of Model Membrane Systems. Canadian Association of Physicists. Toronto, ON, Canada, June 4 - 7.
159. Tristram-Nagle, S., Y. Isaacson, Y. Lyatskaya, Y. Liu, K. Brummond and J. Katsaras. Polymorphism in Myristoylpalmitoylphosphatidylcholine. 44th Annual Meeting of the Biophysical Society. New Orleans, LA, United States. February 12 - 16.
160. Mason, P. C., V. K. Weaver and J. Katsaras. A Systematic Study of Substrate-Dependent Adherence of L_α Phase, Fully Hydrated, Multibilayers. 44th Annual Meeting of the Biophysical Society. New Orleans, LA, United States. February 12 - 16.

161. Katsaras, J., S. Tristram-Nagle, Y. Liu, R. L. Headrick, E. Fontes, P. C. Mason and J. F. Nagle. Revisiting the Ripple Phase Using Fully Hydrated, Aligned DPPC Multibilayers. 44th Annual Meeting of the Biophysical Society. New Orleans, LA, United States. February 12 - 16.
162. Bradshaw, J. P. M. J. M. Darkes, T. A. Harroun, J. Katsaras and R. M. Epand. Neutron Diffraction Studies of Viral Fusion Peptides. 44th Annual Meeting of the Biophysical Society. New Orleans, LA, United States. February 12 - 16.

1999

163. Mason, P. C., B. D. Gaulin, R. M. Epand and J. Katsaras. Critical Behaviour in Model Membrane Systems. Canadian Association of Physicists. Frederickton, NB, Canada. June 6 - 9.
164. Katsaras, J. Hydration and the Vapour Pressure Paradox. Canadian Association of Physicists. Frederickton, NB, Canada. June 6 - 9.
165. Katsaras, J. Aligned Multibilayers on Substrates can be Fully Hydrated from Water Vapor. 43rd Annual Meeting of the Biophysical Society. Baltimore, MD, United States. February 13 - 17.

1998

166. Rogge, R. B., and J. Katsaras. Neutrons: A Versatile Probe for Materials. 29th Canadian High Polymer Forum. Lac Beauport, QC, Canada. August 18 - 21.
167. Lumsden, M. A., J. Katsaras, B. D. Gaulin, and R. M. Epand. Scattering Studies of Aligned DPPC in Excess Water. Canadian Association of Physicists. Waterloo, ON, Canada. June 14 - 17.
168. Katsaras, J. Hydration Properties of Lipid Multibilayers Aligned on a Solid Support. Canadian Association of Physicists. Waterloo, ON, Canada. June 14 - 17.
169. Katsaras, J. Formation of Highly Aligned, Fully Hydrated Multibilayers. 42nd Annual Meeting of the Biophysical Society. Kansas City, MO, United States. February 22 - 26.

1997

170. Katsaras, J. Alignable Biomimetic Membranes. International Conference on Neutron Scattering. Toronto, ON, Canada. August 17 - 21.
171. Root, J. H., J. Katsaras and J. Porter. Non-Destructive Maps of Stress Concentration Effects Near Notches. Fifth International Conference on Residual Stresses. Linköping, Sweden. June 16 - 18.
172. Katsaras, J., Z. Tun and R. S. Prosser. Diffraction from Magnetically Aligned Stacks of L_{α} Unilamellar Lipid Bilayers. 41st Annual Meeting of the Biophysical Society. New Orleans, LA, United States. March 2 - 6.

1996

173. Raghunathan, V. A., and J. Katsaras. The $L_{\beta'}$ - L_{α} Phase Transition in Phosphatidylcholine Lipid Bilayers: A Disorder-Order Transition in Two Dimensions. 40th Annual Meeting of the Biophysical Society. Baltimore, MD, United States. February 17 - 21.

1985 - 1995

174. Katsaras, J., and V. A. Raghunathan. Evidence for Headgroup Super-Lattice in Subgel Phase DPPC Bilayers. 39th Annual Meeting of the Biophysical Society. San Francisco, CA, United States. February. 12 - 16. (1995).

175. Katsaras, J., E. J. Dufourcq and J. Dufourcq. Structure of the Subgel and Gel Phases in Oriented Phosphatidylcholine Multilayers. 38th Annual Meeting of the Biophysical Society. New Orleans, LA, United States. March 6 - 10. (1994).
176. Katsaras, J., R. S. Prosser, R. H. Stinson and J. H. Davis. Constant Helical Pitch of Gramicidin in Gel and Liquid-Crystalline Bilayers. Gordon Research Conference in X-ray Physics. New London, NH, United States. August 12 - 16. (1991).
177. Katsaras, J., R. H. Stinson, J. H. Davis and E. J. Kendall. High-Resolution Electron Density Profiles Revealing the Influence of Fatty Acids and Small Ring Molecules on Bilayer Structure. 10th International Biophysics Congress. Vancouver, BC, Canada. July 29 - August. 3. (1990).
178. Katsaras, J., R. H. Stinson, E. J. Kendall and B. D. McKersie. Structural Changes in Model Membranes Following Lipid Deesterification by Free Radicals: A Small-Angle X-ray Diffraction Study. Canadian Federation of Biological Societies. Guelph, ON, Canada. July. (1986).
179. Kendall, E. J., J. Katsaras, R. H. Stinson and B. D. McKersie. Phase Transitions in Freeze-Damaged Membranes. American Society of Plant Physiologists. Providence, RI, United States. August. (1985).

PEOPLE

POST-DOCTORAL FELLOWS

- **Scott, H. L.** – Large Scale Structures Group, Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, TN, United States. August 1, 2020 – March 3, 2023
- **Kinnun, J. J.** – Large Scale Structures Group, Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, TN, United States. March 9, 2020 – March 9, 2023
- **Bolmatov, D.** – Department of Physics, University of Tennessee, Knoxville, TN, United States. August 1, 2017 - September 30, 2019
Current Position: Post-Doctoral Fellow, University of Tennessee, Knoxville, TN, United States.
- **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, Oak Ridge, TN, United States. May 8, 2011 – August 2, 2013
Current Position: Associate Professor, University of South Florida, Tampa Bay, FL, United States.
- **Heberle, F. A.** – Oak Ridge Associated Universities (ORAU) Fellow, Oak Ridge, TN United States. January 2, 2011 - October 15, 2015
Current Position: Assistant Professor, University of Tennessee, Knoxville, TN, United States
- **Kučerka, N.** – NSERC Visiting Fellow, Chalk River, ON, Canada. April 1, 2006 - March 31, 2008
Current Position: Professor, Department of Physical Chemistry of Drugs, Comenius University, Bratislava, Slovakia; Deputy Director of Science, Frank Laboratory of Neutron Physics, Dubna, Russia
- **Abraham, T.** – NSERC Visiting Fellow, Chalk River, ON, Canada. August 1, 2005 – September 25, 2006
Current Position: Associate Professor and Director of the Microscopy Imaging Core Facility, Milton S. Hershey Medical Center, Pennsylvania State University, Hershey, PA, United States
- **Pencer, J. S.** – NSERC Visiting Fellow, Chalk River, ON, Canada. September 1, 2004 – June 4, 2007
Current Position: Reactor Physicist at New Brunswick Power, Saint John, NB, Canada
- **Chakrapani, M.** – NSERC Visiting Fellow, Chalk River, ON, Canada. January 15, 2003 - January 1, 2005 (Co-Supervisor Linda J. Johnston, NRC/SIMS)
Current Position: Senior Vice President, Clairvolex
- **Harroun, T. A.** – NSERC Visiting Fellow, Chalk River, ON, Canada. September 15, 2002 - April 30, 2005; Research Associate, University of Guelph, Guelph, ON, Canada. May 1, 2005 - December 31, 2005
Current Position: Professor, Brock University, St. Catharines, ON, Canada
- **Nieh, M.-P.** – NSERC Visiting Fellow, Chalk River, ON, Canada. October 18, 2001 – March 31, 2004; Research Associate, University of Guelph, Guelph, ON, Canada. April 1, 2004 - January 3, 2005
Current Position: Professor, University of Connecticut, Storrs, CT, United States.
- **Pabst, G. A.** – Erwin Schrödinger Post-Doctoral Fellow, Chalk River, ON, Canada. February 1, 2001 - January 31, 2002; Visitor. Austrian Academy of Sciences, Graz, Austria. June 1, 2004 - August 31, 2004
Current Position: Associate Professor, University of Graz, Graz, Austria
- **Mason, P. C.** – NSERC Visiting Fellow, Chalk River, ON, Canada. December 1, 1998 - September 15, 2000
Current Position: Director, Quantum Sensors Program, NRC, Ottawa, ON, Canada

UNDERGRADUATE STUDENTS

- **Podar, P. T.** – DOE SULI Internship Program. June 6, - August 12, 2022
- **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

GRADUATE STUDENTS

- **Drazba, P.** – Department of Physics and Astronomy, University of Tennessee, Knoxville, TN, United States. September 1, 2011 – July 31, 2013.

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. 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

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

REVIEWER

JOURNALS

Current Opinion in Colloid and Interface Science; 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

Israel Science Foundation; Vinnova; Sylvia Fedoruk Canadian Centre for Nuclear Innovation; Agence Nationale de la Recherche (France); University of Alberta; Netherlands Organization for Scientific Research (NWO); 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); National Science Foundation (NSF)

FUNDING

FY2022 - 2023

11257 ORNL Standard Seed Money Fund, Director's R&D Fund – Artificial Neural Networks Based on Memristor Crossbars of Lipid Bilayers. \$190K (PI: P. Collier)

FY2020 - 2021

10080 ORNL Standard Seed Money Fund, Director's R&D Fund – Stable Ionic Oligomer Membranes Capable of Learning and Memory. \$190K (PI: P. Collier)

FY2020 - 2022

9797 ORNL Laboratory Directed Research and Development (LDRD), Director's R&D Fund – The Halbach Ring, Alliance of Magnetism and Soft-Matter. \$1.17M (PI: T. R. Charlton)

2018 - 2021

National Science Foundation (NSF) – Mechanisms of Interleaflet Coupling in Asymmetric Lipid Membranes. \$750K (PI: F. A. Heberle) (July 1, 2018 – June 30, 2023)

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)

2016 - 2020

National Institutes of Health (NIH) R01 – Transmembrane Peptides for Targeting Acidosis. \$1.65M (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. \$190K (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. \$190K (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). \$814K (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. \$860K (PI: R. F. Standaert)

FY2012 - 2013

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

2011 - 2013

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, \$173K

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

2004

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

2003

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