

Curriculum Vitae

Benjamin L. Stottrup, Ph.D.

Augsburg College
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EMPLOYMENT

Augsburg College Associate Professor of Physics Assistant Professor of Physics	Minneapolis, MN 2011 – Present 2005 – 2010
University of Minnesota Adjunct Faculty, Dept. of Bioproducts and Biosystems Engineering Visiting Faculty, Dept. of Chemistry	Minneapolis, MN 2011 – Present 2006 – 2010
Seattle Pacific University, Department of Physics Adjunct Faculty	Seattle, WA Fall 2004
University of Washington, Department of Physics Research Assistant (Condensed Matter/Physical Chemistry)	Seattle, WA Sept 2000 – July 2005
Los Alamos National Laboratory Nuclear Physics Internship	Los Alamos, NM Summer 2000
University of Washington, Department of Physics Teaching Assistant	Seattle, WA Oct 1999 – June 2000

EDUCATION

University of Washington Ph.D. in Physics Mentor: Dr. Sarah Keller <i>Miscibility phase transitions in lipid monolayers and bilayers</i>	Seattle, WA August 2005
University of Minnesota, Morris B.A. with High Distinction Major Physics, Minor Math	Morris, MN June 1999

HONORS and AWARDS (monetary support listed below)

Augsburg College Distinguished Contribution to Teaching and Learning: Mentoring and Advising	2010
Augsburg SPS Undergraduate Research Award, Faculty Advisor	2009
Cottrell College Science Award – Research Corporation	2007 – 2009
Eppley Foundation for Research Postdoctoral Fellowship	2007
University of Minnesota Pathfinder Award	2007
Augsburg Summer Scholarship Fellowship	2006
American Society for Cell Biology Travel Award	2004
NSF IGERT Nanotech Fellowship, University of Washington	2003 – 2004
ARCS Fellowship, University of Washington	2000 – 2002
Abbot Award in Physics, University of Minnesota, Morris	1999
Scholar of the College, University of Minnesota, Morris	1999
Roberg Scholarship	1995 – 1999
Morris Academic Partnership, University of Minnesota, Morris	1996 – 1997
Alumni Scholarship, University of Minnesota, Morris	1996 – 1997
President's Scholarship, University of Minnesota, Morris	1995 – 1996

PEER REVIEWED PUBLICATIONS (Reverse Chronological)

(* undergraduate student, • while at Augsburg)

- **12.** M. Halter, D. R. Sisan, J. Chalfoun, B. L. Stottrup, A. Cardone, A. Dima, A.Tona, A. L. Plant, J. T. Elliott, *Cell cycle dependent TN-C promoter activity determined by live cell imaging of a destabilized GFP reporter cell line* **2011** Cytometry Part A 79A:192-202.
- **11.** M.P. Goertz and B.L. Stottrup *Mechanical Properties of Phospholipid-Based Biolubricant Films and Membranes* Book Chapter in Surfactants in Tribology Volume 2, Chapter 6 CRC Press. G. Biresaw and K. L. Mittal, Editors **2011** .
- **10.** B.L. Stottrup, A.H. Nguyen*, E. Tüzel. *Taking Another Look with Fluorescence Microscopy: Image Processing Techniques in Langmuir Monolayers for the Twenty-First Century* **2010** BBA Biomembranes 1798:1289-1300.
- **9.** R. Narayanan, B.L. Stottrup, P. Wang. *Surface Packing Characterization of Langmuir Monolayer Anchored Enzyme* **2009** Langmuir 25:10660-10665.
- **8.** M.P. Goertz, B.L. Stottrup, J.E. Houston, X.-Y. Zhu. *Nanomechanical Contrasts of Gel versus Fluid Phase Supported Lipid Bilayers* **2009** J. Phys Chem B. 113:9335–9339.
- **7.** Y. Deng, Y. Wang, B. Holtz, J. Li, N. Traaseth, G. Veglia, B.L. Stottrup, R. Elde, D. Pei, A. Guo, X.-Y. Zhu. *Fluidic and Air-Stable Supported Lipid Bilayer and Cell-Mimicking Microarrays* **2008** J. Am. Chem. Soc. 130: 6267-6271.
- **6.** M.P. Goertz, B.L. Stottrup, J.E. Houston, X.-Y. Zhu. *Density Dependent Friction in Lipid Monolayers.* **2007** J. Phys. Chem. A 111(49) 12423-12426.
- **5.** B.L. Stottrup, A.M. Heussler*, T.A. Bibelnieks. *Determination of Line Tension in Lipid Monolayers by Fourier Analysis of Capillary Waves.* **2007** J. Phys. Chem. B. 111: 11091-11094.
- **4.** B.L. Stottrup S.L. Keller. *Phase Behavior of Lipid Monolayers Containing DPPC and Cholesterol Analogues.* **2006** Biophys. J. 90: 3176-3183.
- **3.** M.E. Beattie, S.L. Veatch, B.L. Stottrup, S.L. Keller. *Sterol Structure Determines Miscibility vs. Melting Transitions in Lipid Vesicles.* **2005** Biophys. J. 89: 1760-1768.
- **2.** B.L. Stottrup, D.S. Stevens*, S.L. Keller. *Miscibility of Ternary Mixtures of Phospholipids and Cholesterol in Monolayers, and Application to Bilayer Systems.* **2005** Biophys. J. 88: 269-276.
- **1.** B.L. Stottrup, S.L. Veatch, S.L. Keller. *Nonequilibrium Behavior in Supported Lipid Membranes Containing Cholesterol.* **2004** Biophys. J. 86: 2942-2950.

CONFERENCE PRESENTATIONS

(• while at Augsburg, * undergraduate student)

- **20.** B.L. Stottrup, R. Tavakley*, S. May, M.P. Goertz, H.L. Brockman March 2011
Interactions Between Carboxyl Terminated Nanoparticles and Phase Separated Lipid Monolayers. 55th Annual Biophysical Society Meeting, Baltimore, MD
- **19.** B. D. Rockett, A. Franklin, M. Harris, H. Teague, J. Williams, S.R. March 2011
Wassall, A.H. Nguyen*, B.L. Stottrup, S.R. Shaikh. N-3 Polyunsaturated Fatty Acids Disrupt Micron and Nanometer Scale Non-Raft Organization by Increasing Cell Size and Minimizing Molecular Interactions with Surrounding Rafts. 55th Annual Biophysical Society Meeting, Baltimore, MD
- **18.** T. Lopez*, B.L. Stottrup, Construction of a Magnetic Needle Viscometer for March 2011
us in Research and Undergraduate Education. 55th Annual Biophysical Society Meeting, Baltimore, MD
- **17.** S.B.McKagan and B.L. Stottrup Designing Inquiry Based labs in July 2010
nanotechnology and materials science American Association of Physics Teachers Meeting, Portland OR.
- **16.** B.L. Stottrup and S. B. McKagan Designing Inquiry Based labs in June 2010
nanotechnology and materials science. Gordon Research Conference, Mount Holyoke, MA
- **15.** A. H. Nguyen*, E.Tuzel, B.L. Stottrup, *Lipid Monolayer Line Tension Measurements and Model Convolution.* February 2010
54th Annual Biophysical Society Meeting, San Francisco, CA

- **14.** C.M. Staloch*, B.R. Hoffmann*, B.L. Stottrup. *The Influence of Sterol Composition on Transbilayer Diffusion Rates*. Biophysical Society Meeting, Boston, MA March, 2009
- **13.** A.H. Nguyen*, E. Tüzel, B.L. Stottrup. *Lipid Monolayer Experiments and Simulations to Extract Line Tensions*. Biophysical Society Meeting, Boston, MA March, 2009
- **12.** B. L. Stottrup, M. Halter, K. J. Langenbach, A. Tona, A. L. Plant, J. T. Elliott. *Tenascin-C is upregulated at the end of the cell cycle in proliferating NIH 3T3 fibroblasts*. Chemotaxis and Cell Motility Workshop, Institute of Mathematics and its Applications, University of Minnesota May, 2008
- **11.** B.L. Stottrup, A.M. Heussler*, A.H. Nguyen*, T.A. Bibelnieks, E. Tüzel, D.M. Kroll. *Line Tension Measurements in Lipid Monolayers: Composition and Structure*. Biophysical Society Meeting, Long Beach, CA February 2008
- **10.** M. Halter, B. L. Stottrup, K. J. Langenbach, A. Tona, A. L. Plant, J. T. Elliott. *Tenascin-C is upregulated at the end of the cell cycle in proliferating NIH 3T3 fibroblasts* American Society for Cell Biology, Washington D.C. December 2007
- **9.** B.L. Stottrup, B.J. Sonquist*. *Phase Separation in Lipid Membranes Containing Hydroxycholesterols*. BIOworkshop07, Fine Institute of Theoretical Physics, University of Minnesota May 2007
- **8.** B.L. Stottrup, B.J. Sonquist*. *The Miscibility Phase Behavior of Lipid Monolayers Containing 25-Hydroxycholesterol*. Biophysical Society Meeting, Baltimore, MD March 2007
- **7.** B.L. Stottrup, S.L. Keller. *Phase Behavior of Lipid Monolayers Containing DPPC and Cholesterol Analogs*. Biophysical Society Meeting March 2006
- 6.** B.L. Stottrup, S.L. Keller. *Monolayer Lipid Miscibility Phase Behavior, with Comparisons to Bilayer Systems*. Biophysical Society Meeting February 2005
- 5.** B.L. Stottrup, S.L. Keller. *Comparison of Miscibility Phase Behavior in Lipid Monolayers and Bilayers*. American Society for Cell Biology December 2004
- 4.** B.L. Stottrup, S.L. Keller. *Lateral Organization in Supported Lipid Monolayers and Bilayers*. Biophysical Society Meeting February 2004
- 3.** B.L. Stottrup, S.L. Keller. *Lipid domains in vesicles vs. supported membranes*. American Society for Cell Biology December 2003
- 2.** S.L. Keller, S.L. Veatch, B.L. Stottrup. *Liquid Domains in Bilayers and Monolayers of Lipid Mixtures*. American Physical Society Meeting March 2003
- 1.** B.L. Stottrup, J.G. Dash, O.E. Vilches, J.S. Wettlaufer. *A Test of Thermodynamic Bouyancy of Silica Beads in Solid Argon*. American Physical Society Meeting, Indianapolis, IN March 2002

INVITED SEMINARS AND COLLOQUIUM PRESENTATIONS (• while at Augsburg)

- **15.** Invited Colloquium, Saint Olaf College, Northfield, MN March 16, 2011
- **14.** Invited Seminar, University of Minnesota, Hormel Institute, Austin, MN March 25, 2010
- **13.** Invited Seminar, North Dakota State University, Physics Dept. Fargo, ND March 12, 2009
- **12.** Invited Seminar, Bethel University, St. Paul MN January 15, 2008
- **11.** Invited Seminar, University of Minnesota, Institute for Mathematics and its Applications, Minneapolis, MN January 8, 2008
- **10.** Invited Seminar, Hamline University, St. Paul, MN October 24, 2007
- **9.** Invited Seminar, University of Minnesota, Minneapolis, MN December 8, 2006
- **8.** Invited Seminar, Minnesota State University, Moorhead, MN November 9, 2006
- **7.** Invited Seminar, North Dakota State University, Fargo, ND November 9, 2006
- **6.** Invited Seminar, Hormel Institute, Austin, MN August 16, 2005
- 5.** Invited Seminar, Augsburg College, Minneapolis, MN February 22, 2005
- 4.** Invited Seminar, Carleton College, Northfield, MN January 14, 2005
- 3.** Invited Seminar, DePauw University, Greencastle, IN December 10, 2004
- 2.** Invited Seminar, St. Olaf College, Northfield, MN December 2, 2004

1. Invited Seminar, Seattle Central Community College, Seattle, WA

March 19, 2004

SUPPORT(while at Augsburg)

NSF MRI Award: Acquisition of an Interfacial Characterization Lab for Biophysical and Biotechnology Systems in Research, Undergraduate Education, and Beyond	\$112,325	2011 – Present
NSF CCLI Award: Implementing a Physics Education Research Based Curriculum at Four Year and Community Colleges and Extending it Through the Use of Regional Characterization Facilities	\$198,901	2009 – Present
SPS Undergraduate Research Award, Faculty Advisor	\$1,815	2009
Cottrell College Science Award – Research Corporation	\$30,019	2007 – 2009
Eppley Foundation for Research Postdoctoral Fellowship	\$22,600	2007
University of Minnesota Pathfinder Award	\$5,000	2007
Faculty Mentor URGO Summer Research Students (6)		2006 – Present
Ocean Optics Education Cost Sharing Grant	\$3,900	2007
Augsburg Summer Scholarship Fellowship	\$2,000	2006

Subcontracts

CSUMS Program (NSF Funded University of Saint Thomas)	~\$15,000	Summer 2010
Minnesota Space Grant Consortium (NASA –Augsburg member)	~\$25,000	2006 – Present

Donations

Anonymous donation to Augsburg Biophysics	\$56,000	2006 - Present
Test Equipment donation from Medtronic	N/A	
Test equipment donation from Boston Scientific	N/A	

COURSES TAUGHT (• while at Augsburg)

- Augsburg 101: Augsburg Seminar
- McNair 301: Introduction to Research
- Honors 380: Art, History, and Science of Brewing
- Physics 101: Introduction to Astronomy
- Physics 116: Introduction to Physics
- Physics 116L: Introduction to Physics Laboratory
- Physics 245: Modern Physics
- Physics 245L: Modern Physics Laboratory
- Physics 261: Electronics
- Physics 261L: Electronics Laboratory
- Physics 395: Comprehensive Laboratory I
- Physics 396: Comprehensive Laboratory II
- Physics 1142: Introduction to Earth System Science (Seattle Pacific University)

PROFESSIONAL DEVELOPMENT

EDUCATION

Gordon Research Conference on Advanced Labs and Undergraduate Research, Mount Holyoake, MA	June 6 – 10, 2010
Presenting Data and Information: Workshop by Edward Tufte	August 28, 2007
Site Visit: Physics Education Research Group, University of Washington, Seattle, WA	January 12, 2007
American Association of Physics Teachers Meeting, Seattle, WA	January 6-10, 2007
Workshop for New Physics and Astronomy Faculty, American Center for Physics, College Park, MD	October 26-29, 2006
Attendee Minnesota Area Association of Physics Teachers Meeting	
Saint John's University, Collegeville, MN	April 25, 2010
Augsburg College, Minneapolis, MN	October 31, 2009
University of Saint Thomas, St. Paul, MN	April 25, 2009
Gustavus Adolphus College, Saint Peters, MN	October 25, 2008
Macalester College, St. Paul, MN	April 27, 2008
Saint Cloud State University, Saint Cloud, MN	October 27, 2007
Bethany Lutheran College, Mankato, MN	April 28, 2007

University of Minnesota, Minneapolis, MN
Hamline University, St. Paul, MN

October 21, 2006
April 29, 2006

SCHOLARSHIP

University of Minnesota Characterization Facility Course in Atomic Force Microscopy (AFM)	Spring 2010
University of Minnesota Characterization Facility Course in Scanning Electron Microscopy (SEM)	Spring 2010
Member of Professor Xiaoyang Zhu's Research Group, University of Minnesota (~5 presentations given), Minneapolis, MN	Fall 2005 – Spring 2009
Frontiers in Proteomics and Nanomedicine, University of Minnesota, Minneapolis, MN	November 12 – 14, 2007
Site Visit: Dr. Houston's Surface Mechanics Research Lab, Sandia National Labs, Albuquerque, NM	August 16 – 17, 2007
Write Winning Grants, University of Minnesota, Minneapolis, MN	April 4, 2007
Introductory Atomic Force Microscopy (AFM) & AFM in Liquid Media, University of Minnesota, Minneapolis, MN	Spring 2007
Biological and Biomolecular Coatings Minisymposium, 3M Company, Maplewood, MN	October 3, 2006
International Symposium on Biotechnology Trends, University of Minnesota, Minneapolis, MN	October 20, 2005

PROFESSIONAL DEVELOPMENT (WITHIN AUGSBURG)

CTL Portfolio Workshop	May 13, 2010
First Year and Developmental Education Workshop	May 15 – 16, 2007
CTL New Faculty Retreat, Mt. Olivet Retreat Center, MN	May 9 – 10, 2007
CTL Workshop on Diversity and Global Learning	May 8, 2007
CTL Portfolio Workshop	November 30, 2005
Gen Ed Critical Thinking Workshop	October 4, 2005
CTL Book Club " <i>What the Best College Teachers Do</i> "	Fall 2005

SERVICE ACTIVITIES

POSITIONS HELD

Member of Advisory Council, Teso University's College of Education, Soroti Uganda	September 2010 – Present
Liaison for Resource Development, Minnesota Area Association of Physics Teachers	Spring 2010 – Present

PROPOSAL REVEIWS

Research Corporation

JOURNAL REVIEWS

Biophysical Journal, Langmuir, NanoLetters, Physical Review Letters, Biophysica Biochimica Acta –Biomembranes

PROFESSIONAL MEMBERSHIP

Biophysical Society, American Physical Society, American Association of Physics Teachers, Minnesota Area Association of Physics Teachers, Advanced Laboratory Physics Association.

PRESENTATIONS

Panelist, Principal Investigator Panel, CSUMS Conference, University of Saint Thomas, Saint Paul MN	July 27, 2010
Panelist, Preparing Future Faculty Retreat, University of Minnesota, Minneapolis, MN	January 14, 2010
Seminar, Career Development Organization, University of Washington Physics Department, Seattle, WA	May 17, 2006
Panelist, Preparing Future Faculty Program, University of Minnesota, Minneapolis, MN	October 31, 2005

SERVICE ACTIVITIES (WITHIN AUGSBURG)

DEPARTMENTAL SERVICE

Lead Organizer for Minnesota Area Association of Physics Teacher Meeting at Augsburg College	October 31, 2009
Lead Organizer Nanotechnology and Networking Workshop at Augsburg College	October 16, 2009
Produce Augsburg Biophysics Newsletter (The Micelle, 7 issues)	Spring 2007 – Present
Physics Search Committee, 4 positions (Space, Biophysics, Limited Term)	Fall 2007 – Present
Launched and Maintain Physics 599 Moodle site for Physics Department AugSem Faculty	Winter 2006 – Present
Faculty Advisor ~45 students (physics and pre-engineering majors)	Fall 2005 – Present
Faculty Research Roundtable, <i>From the Critical Phase Behavior of Immiscible Liquids to YouTube</i> , Zyzzogeton, Augsburg, Minneapolis, MN	Fall 2005 – Present
Representative, Space Grant Consortium Spring Meeting (3 meetings)	April 19, 2007
Advisor Independent Projects Physics 122 (approximately 10 projects)	2007 - Present
Launched and Maintain Website to promote Augsburg Biophysics	Spring 2006 – Present
Faculty Presenter, Science Discovery Day, Augsburg College	January 2006
	November 7, 2005

COLLEGE AND COMMUNITY SERVICE

Co-facilitator for First Year Faculty Program	Fall 2011 – Present
Co-organizer of Speaking of Scholarship Series	2010 – 2011
Student Standing Committee	Summer 2010 – Present
Assistant Dean/Vice President search committee member	Spring 2009
McNair Advisory Committee	Fall 2008 – Present
Expanded Partnership Workgroup, Center for Science, Business and Religion	Spring 2008
Academic Vision Workgroup, Center for Science, Business and Religion	Spring 2008
Enrollment Planning Commission	2007 – 2008
Admissions and Enrollment Committee	Fall 2007 – Fall 2009
Representative, Nanotechnology Partnership with St. Paul College	Fall 2006 – Present
Member, Science Division Liaison For Computing Search Committee	Fall 2007
AugSem Instructor 6X cohorts	Fall 2005 – Present

UNDERGRADUATE MENTORSHIP (• while at Augsburg)

Students working on research projects have presented over 50 presentations at local and regional meetings of undergraduate scientists (Zyzzogeton, Minnesota Area Association of Physics Teachers, North Dakota State University Undergraduate Research Symposium, NorthStar STEM alliance, etc. Students from my lab have won the MAAPT student poster competition (2007-2010).

- Nathan Ly 2010 – Present Augsburg, 2013, Sundquist Scholar
- Gottlieb Uahengo 2010 – Present Augsburg, 2013, McNair Scholar
- Trevor Rodriguez-Soletto 2010 – Present Augsburg, 2013, NorthStar Stem Scholar and Sundquist Scholar
- Hue Vang, 2011 – Present Augsburg, 2012, Sundquist Scholar
- Lance Kifer 2010 – Present Augsburg, 2012, McNair Scholar
- Nick Hudson, 2009 Augsburg, 2012
- Nick Ward, 2009 – Present Augsburg, 2011, McNair Scholar, REU Georgia Institute of Technology, Richter Memorial Scholarship
- Tom Lopez, 2008 – Present Augsburg 2011, McNair Scholar, University of St. Thomas CSUMS Program **MAAPT Best Student Poster 2010**, Hanwick Scholarship
- Nathaniel Johnson, 2008 – 2009 Augsburg 2011, Sundquist Scholar, **MAAPT Best Student Poster 2009**
- Sergio Garcia, 2008 Augsburg 2011, Physics Major
- Andrew Nguyen, 2007 – 2010 Augsburg 2010, Sundquist Scholar, Kenneth Erickson Scholarship, **MAAPT Best Student Poster 2008**, , Process Engineer Drug

- Ben Hoffman, 2007 – 2009 Delivery Division, 3M
- Cait Kortuem, 2007 Augsburg 2010, University of Minnesota Electrical Engineering Augsburg 2010, Sundquist Scholar, REU at University of Chicago, Richter Memorial Scholarship
- Christine Staloch, 2007 – 2009 Augsburg 2009, Physics and Chemistry Major
- Alison Heussler, 2006 – 2008 Augsburg 2009, Sundquist Scholar, 2 REUs at University of Minnesota **MAAPT Best Student Poster 2007**, Case Scholarship now at Nanocopoeia, Inc.
- Dan Forseth, 2006 – 2007 Augsburg 2008, Biology Major, Physical Sciences Teacher at Private High School
- Kyle Sontag, 2006 – 2007 Augsburg 2007, University of Georgia, Chemistry (PhD program)
- Ben Sonquist, 2006 – 2007 Augsburg 2006, STARBASE Minnesota (STEM Education)
- Erik Lundberg, 2005 – 2006 Augsburg 2006, Cornell University, Elec. Eng (PhD program)
- Mark Stevens, 2004 – 2005 UW 2008, MIT Biochemistry (PhD program)
- Dan Stevens, 2003 – 2004 UW 2004, Biochemist with PATH, Seattle, WA
- Matt Loo, 2003 – 2004 UW 2004, Mechanical Engineer, Hawaii

STUDENT PRESENTATIONS (* indicates undergraduate student)

- **55.** L Kifer, B.L. Stottrup North Dakota State University 4th Annual Undergraduate Research Poster Session, Fargo ND September 16, 2010
- **54.** N. Ly, B.L. Stottrup North Dakota State University 4th Annual Undergraduate Research Poster Session, Fargo ND September 16, 2010
- **53.** T. Rodriguez-Sotelo, B.L. Stottrup North Dakota State University 4th Annual Undergraduate Research Poster Session, Fargo ND September 16, 2010
- **52.** T. Lopez, B.L. Stottrup Development of Real-Time Image Analysis and Data Acquisition for Home-Built Magnetic Need Viscometer CSUMS Conference, University of Saint Thomas July 26, 2010
- **51.** J. Gyllen, E. Tuzel, B.L. Stottrup Study of Anisotropic Effects on Line Tension Using Model Convolution Microscopy CSUMS Conference, University of Saint Thomas July 26, 2010
- **50.** T. Lopez, B.L. Stottrup *A Magnetic Needle Viscometer for Measuring Surface* Minnesota Area Association of Physics Teachers meeting Saint John's University, Colegeville MN **FIRST PRIZE POSTER COMPETITION** April, 24 2010
- **49.** N.L. Pettit, R. Kane, C. Kahlstorf, B. L. Stottrup Hydrophobic Surface on a Polypropylene Substrate Minnesota Area Association of Physics Teachers meeting Saint John's University, Colegeville MN April, 24 2010
- **48.** T. Lopez, B. L. Stottrup *A Magnetic Needle Viscometer for Measuring Surface* Zyzzogeton Augsburg College Minneapolis, MN April 15 2010
- **47.** N. Ward, Benjamin L. Stottrup, Refurbishing of a discarded Langmuir trough purchased off of E-Bay. Zyzzogeton Augsburg College Minneapolis, MN April 15 2010
- **46.** A. H. Nguyen, E. Tuzel, B. L. Stottrup, Lipid Monolayer Line Tension Measurements and Model Convolution. Zyzzogeton Augsburg College Minneapolis, MN April 15 2010
- **45.** N. Ward, B. L. Stottrup, Refurbishing of a discarded Langmuir trough purchased off of E-Bay. North Star STEM alliance Student Research Symposium, University of Minnesota, Minneapolis, MN March 30, 2010
- **44.** T. Lopez, B. L. Stottrup *Construction Magnetic Needle Viscometer for Measuring Surface Viscosity* North Star STEM Alliance Student Research Symposium, University of Minnesota, Minneapolis, MN March 30, 2010
- **43.** N. Ward, B. L. Stottrup, Refurbishing of a discarded Langmuir trough purchased off of E-Bay. Minnesota Area Association of Physics Teachers meeting, Augsburg College Minneapolis, MN October 30, 2009
- **42.** A.H. Nguyen, E.Tuzel, B.L. Stottrup *Computational Analysis of the Lipid Monolayer* North Dakota State University 3rd Annual Undergraduate Research Poster Session, Fargo ND October 8, 2009
- **41.** T. Lopez and B.L. Stottrup *Construction of a Magnetic Needle Viscometer for Measuring Surface Viscosity* North Dakota State University 3rd Annual Undergraduate Research Poster Session, Fargo ND October 8, 2009
- **40.** N.P. Johnson D.R. Hanson, B.L. Stottrup, *Gibbs Monolayer Equilibrium and Periodic Marangoni Instability*, Minnesota Area Association of Physics Teachers Meeting, St Thomas University, St. Paul, MN **FIRST PRIZE POSTER COMPETITION** April 25, 2009

- 39. T. Lopez, B.L. Stottrup, *Construction of a Magnetic Needle Viscometer for Measuring Surface Viscosity* Minnesota Area Association of Physics Teachers Meeting, St Thomas University, St. Paul April 25, 2009
 - 38. S. Romero-Garcia, B.L. Stottrup, *Controlling Monolayer Domain Morphology* Minnesota Area Association of Physics Teachers Meeting, St Thomas University, St. Paul April 25, 2009
 - 37. A.H. Nguyen*, E. Tuzel, B.L. Stottrup, *Computational Analysis of the Lipid Monolayer*, Minnesota Area Association of Physics Teachers Meeting, St Thomas University, St. Paul April 25, 2009
 - 36. C.S Staloch, B.R. Hoffmann *The Influence of Sterol Structure on Transbilayer Diffusion Rates* Minnesota Area Association of Physics Teachers Meeting, University of St. Thomas, St. Paul April 25, 2009
 - 35. N.P. Johnson, D.R. Hanson, B.L. Stottrup *Gibbs Monolayer Equilibrium and Periodic Marangoni Instability*. Zyzzogeton, Augsburg College, Minneapolis, MN April 15, 2009
 - 34. T. Lopez, B.L. Stottrup *Construction of a Magnetic Needle Viscometer for Measuring Surface Viscosity*. Zyzzogeton, Augsburg College, Minneapolis, MN April 15, 2009
 - 33. S. Romero-Garcia, B.L. Stottrup *Kinetics of phase transitions of Lipid Monolayers*. April 15, 2009
 - 32. A.H. Nguyen, E.Tuzel, *Lipid Monolayer Experiments and Simulations to Extract Line Tension*. Zyzzogeton, Augsburg College, Minneapolis, MN April 15, 2009
 - 31. C.S Staloch, B.R. Hoffmann, B.L. Stottrup *The Influence of Sterol composition on Transbilayer Diffusion*. Zyzzogeton, Augsburg College, Minneapolis, MN April 15, 2009
 - 30. B.R. Hoffmann*, C.S. Staloch*, B.L. Stottrup. *Transbilayer diffusion rates of phospholipid analogs in the presence of sterols*. NDSU Undergraduate Research Symposium, Fargo ND September 11, 2008
 - 29. N. Johnson*, D.R. Hanson, B.L. Stottrup. *Surface Tension and Vapor Pressure of Semi Volatile Surfactants* NDSU Undergraduate Research Symposium, Fargo ND September 11, 2008
 - 28. T. Lopez*, B.L. Stottrup. *Construction of a Magnetic Needle Viscometer* September 11, 2008
 - 27. A.H. Nguyen*, E.Tuzel, B.L. Stottrup. *Extraction of Line Tension, 2D Auto Correlation, and Simulation of the Lipid Monolayer* NDSU Undergraduate Research Symposium, Fargo ND September 11, 2008
 - 26. Leif Segen, B.L. Stottrup, X.-Y. Zhu *Quantitative FRAP Measurements of Lipid Bilayers* MRSEC Summer Undergraduate Research Expo 2008 August 8 2008
 - 25. A.H. Nguyen*, B.L. Stottrup, *Line Tension within Lipid Monolayers*. Minnesota Area Association of Physics Teachers Meeting, Macalester College, St. Paul, MN April 26, 2008
- FIRST PRIZE POSTER COMPETITION**
- 24. B.R. Hoffmann*, B.L. Stottrup, *Using GFP to Find Protein Levels and* Minnesota Area Association of Physics Teachers Meeting, Macalester College, St. Paul, MN April 26, 2008
 - 23. C.M.Staloch*, B.L. Stottrup, *Determination of Transbilayer Diffusion Rates Using a Sodium Dithionite Assay*. Zyzzogeton, Augsburg College, Minneapolis, MN April 17, 2008
 - 22. A.H. Nguyen*, B.L. Stottrup, *Domain Tracking and Image Processing in Lipid Monolayers*. Zyzzogeton, Augsburg College, Minneapolis, MN April 17, 2008
 - 21. B.R. Hoffmann*, B.L. Stottrup, *Using GFP to Find Protein Levels and Production Rates Over Cell Lifetimes*. Zyzzogeton, Augsburg College, Minneapolis, MN April 17, 2008
 - 20. C. Kortuem*, B.L. Stottrup, *Miscibility Phase Transitions in Lipid Monolayers: Varying Subphase Ionic Strength*. Zyzzogeton, Augsburg College, Minneapolis, MN April 17, 2008
 - 19. C.M.Staloch*, B.L. Stottrup, *Determination of Transbilayer Diffusion Rates Using a Sodium Dithionite Assay*. North Dakota State University Physics Undergraduate Research Symposium, Fargo, ND August 24, 2007
 - 18. A.H. Nguyen*, B.L. Stottrup, *Domain Tracking and Image Processing in Lipid Monolayers*. North Dakota State University Physics Undergraduate Research Symposium, Fargo, ND August 24, 2007
 - 17. B.R. Hoffmann*, B.L. Stottrup, *Using GFP to Find Protein Levels and Production Rates Over Cell Lifetimes*. North Dakota State University Physics Undergraduate Research Symposium, Fargo, ND August 24, 2007
 - 16. C. Kortuem*, B.L. Stottrup, *Miscibility Phase Transitions in Lipid Monolayers: Varying Subphase Ionic Strength*. North Dakota State University Physics Undergraduate Research Symposium, Fargo, ND August 24, 2007
 - 15. Daniel Forseth*, B.L. Stottrup. *Extraction of Sterols from Lipid Monolayers Using β -Cyclodextrin* Minnesota Area Association of Physics Teachers Meeting, Bethany Lutheran College, Mankato, MN April 28, 2007
 - 14. S. Kyle Sontag*, B.L. Stottrup. *Computational and experimental tools for studying the behavior of lipid bilayers* Minnesota Area Association of Physics Teachers Meeting, April 28, 2007

- Bethany Lutheran College, Mankato, MN
- 13. A.M. Heussler*, B.L. Stottrup. *Applications of simple image processing routines to biophysical systems* Minnesota Area Association of Physics Teachers Meeting, Bethany Lutheran College, Mankato, MN **FIRST PRIZE POSTER COMPETITION** April 28, 2007
- 12. B.J. Sonquist*, B.L. Stottrup. *The Miscibility Phase Behavior of Lipid Monolayers Containing 25-Hydroxycholesterol* Minnesota Area Association of Physics Teachers Meeting, Bethany Lutheran College, Mankato, MN April 28, 2007
- 11. A.M. Heussler*, B.L. Stottrup. *Analysis of Domain Boundary Fluctuations in Two Dimensional Biophysical Systems* Minnesota Academy of Sciences, Hamline University, St. Paul, MN April 21, 2007
- 10. B.J. Sonquist*, B.L. Stottrup. *The Miscibility Phase Behavior of Lipid Monolayers Containing 25-Hydroxycholesterol* Minnesota Academy of Sciences, Hamline University, St. Paul, MN April 21, 2007
- 9. A.M. Heussler*, B.L. Stottrup. *Analysis of Domain Boundary Fluctuations in Two Dimensional Biophysical Systems* Zyzzogeton, Augsburg College, Minneapolis, MN April 18, 2007
- 8. S.K. Sontag*, B.L. Stottrup. *Software routines and experimental tools for studying the behavior of lipid bilayers* Zyzzogeton, Augsburg College, Minneapolis, MN April 18, 2007
- 7. D. Forseth*, B.L. Stottrup. *Extraction of Sterols From a Lipid Monolayer Using β -Cyclodextrin* Zyzzogeton, Augsburg College, Minneapolis, MN April 18, 2007
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