

## CV Atul N. Parikh

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Department of Materials Science & Engineering  
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### Education

1987 B. Chem. Eng., Chemical Engineering, University Department of Chemical Technology (UDCT), University of Bombay, India  
1994 Ph. D., Polymer Science, Materials Science Department, Pennsylvania State University, USA (Advisor: David L. Allara)

### Appointments

2011-Present Professor of Biomedical Engineering, UC Davis (50%)  
2011-Present Professor of Materials Science & Engineering, UC Davis (50%)  
2007-2011 Professor of Applied Science, UC Davis  
2001 – 2007 Associate Professor, Applied Science, UC Davis (Tenured, 2001)  
1998 – 2001 Technical Staff Member, Biosciencem Los Alamos National Laboratory,  
1996 –1998 Post-Doc., Chemical Science and Technology, Los Alamos National Laboratory (Supervisor: Basil I. Swanson)  
1994 – 1995 Post-Doc., Materials Research Institute, PennState (Advisor: David L. Allara)  
1988 – 1993 Graduate Assistant, PennState

### Other Appointments

2013-Present Visiting Professor, School of Materials Science & Engineering, Nanyang Technological University, Singapore  
2011-2013 Gästprofessor (Rector's Visiting Fellow, Sabbatical), Applied Physics, Linkoping University, Sweden  
2009-2012 Chair, Designated Emphasis in Biophotonics, Graduate Studies, UC Davis  
2003-2008 Science Associate Director, NSF Center for Biophotonics Science & Technology, UC Davis, Sacramento, CA  
2007-Present Editorial Advisory Board, *Biointerphases*, A Springer Journal  
2004-2007 Faculty Co-Director, Northern California Nanotechnology Center, College of Engineering Microfabrication Facility, UC Davis  
2001-2004 Editorial Advisory Board, *Langmuir*, ACS Journal of Surface & Colloids Chemistry

### Professional Service, Honors, and Awards

2017 Fellow, American Institute of Medical & Biological Engineering (AIMBE)  
2015-2018 External Advisory Board, Sandia Grand Challenge on NanoCRISPR, Sandia National Laboratories  
2018 Co-Chair, 2018 Summer Workshop in Physics and Chemistry of Lipid Interfaces, Telluride, CO (Scheduled)  
2014-2016 Chair, 2016 Gordon Research Conference on Biointerface Science Les Diablerets, Switzerland, June 2016  
2012-2014 Vice-Chair, 2014 Gordon Research Conference on Biointerface Science Il Ciocco (Lucca (Barga), Italy, June 2014  
2014 Interdisciplinary Graduate School Distinguished Seminar Speaker, Nanyang Technological University, Singapore  
2013 Keynote Lecture Award, Australian Society for Biophysics, Melbourne, Au  
2013 College of Engineering Distinguished Visiting Lecture Award, Nanyang Technological University, Singapore

2010-present Continuing Symposium Chair, ACS Division of Colloid & Interface Chemistry  
 2011 Dissertation Opponent, Ph. D. Dissertation, Chalmers University, Sweden  
 2010 Program Review Panel, Materials Science, Lawrence Berkeley Lab, CA  
 2008 Program Review, Materials, Natl Renewable Energy Lab, Boulder, CO  
 2007 Review Panelist, Ruth-Kirchstein NIH Graduate Fellowship Panel, NIH  
 2007 Review Panelist, Biomaterials CAREER Proposal Panel, NSF  
 2007 Solar Energy Utilization Panel Reviewer, Basic Energy Sciences, US DOE  
 2006 Discussant for AAAS Symposium on Nanobiotechnology  
 2006-2009 Program Review Committee, Lujan Neutron Scattering Center, Los Alamos National Laboratory  
 2006 Guest Co-Editor (with J. T. Groves) for MRS Bulletin Issue on Membrane Materials Science.  
 2006-2009 Program Review Committee, Lujan Neutron Scattering Center, Los Alamos National Laboratory  
 2005-2010 Chair, National Visiting Board, Southwest Center for Microelectronics Education, Albuquerque, NM  
 2005-2010 Users Executive Committee, Center for Integrated Nanotechnologies (CINT), Sandia /Los Alamos National Labs  
 2005 Co-organizer (with M. Demirel), ICAM Workshop on Bio-inspired Nanomaterials, Penn State, 2005  
 2004 Special Emphasis Panel Reviewer, Nanoscience and Nanotechnology in Biotechnology and Medicine, NIH  
 2004 Physical Bioscience Division Review, Lawrence Berkeley National Laboratory  
 2003- ICAM (Inst. for the Complex Adaptive Matter) Fellow Selection Committee  
 2004- ICAM Davis Branch Steering Committee, ICAM  
 2004 Panelist, Nanoscience in Biotechnology and Medicine, Regional Life Sciences  
 2004 Co-organizer and Co-chair (1/4), "Life-Like Matter" An Institute for Complex Adaptive Matter Workshop, Santa Fe, NM  
 2004 Co-organizer and chair for (1) Optical Probes for Life Science Research,  
 2003 Co-organizer and co-chair, Adamson's Symposium Honoring Dave Allara and  
 2003 Co-chair, UC System-wide Biomedical Engineering Symposium, San Diego, CA  
 2003 Recognized as a team member for the development and establishment of Center for Integrated Nanotechnology, CINT, A DOE Facility.  
 2002 Invited Guest Editorial Assistant, Special Issue on Biomolecular Interfaces, Langmuir, ACS  
 2001-2004 Editorial Advisory Board, *Langmuir*, ACS Journal of Surface & Colloids Chemistry  
 1997 Organizing Committee, *Workshop on Self-Assembling and Biomimetic Systems*, Los Alamos National Laboratory, NM  
 1997 Organizer and Chair, *Organized Multilayered Systems*, National Meeting of The ACS, Las Vegas, NV  
 1994 Xerox Award in Intercollegiate Materials Research for Doctoral Thesis,  
 1991 Hoechst Celanese Excellence in Polymer Science Award, Penn State  
 1991 The First Prize in The Graduate Research Exhibition, (Physical Sciences), Penn  
 Various Reviewer for NSF, DOE, NIH, UC Discovery, DOE. DOD SBIR Proposals  
 Various External Tenure/promotion Examiner/Evaluator, Washington State University, Lawrence Berkeley National Laboratory, Univ. of Montreal (Canada), Emory University, Academia Sinica (Taiwan), University of New Mexico, Illinois Institute of Technology, Chalmers University, Sweden, University of Virginia, University of California, Merced, Nanyang Technological University, City University of New York,

- Various Journal Article Reviewer for *Accounts of Chemical Research*, *ACS Nano*, *ACS Chemical Biology*, *Analytical Chemistry*, *Angewandte Chemie*, *Advanced Materials*, *Biointerfaces*, *Biophysical Journal*, *Biomaterials*, *Chemphyschem*, *Chemistry & Biology*, *Chemical Communications*, *Chem. Mater.*, *Colloids & Surfaces*, *J. Amer. Chem. Soc.*, *J. Mol. Biol.*, *J. Phys. Chem.*, *Langmuir*, *Lab on a Chip*, *Nanoletters*, *Nature*, *Nature Nanotechnology*, *Nature Methods*, *Nature Materials*, *PNAS*, *Science*, *Small*, *Soft Matter*
- Various Member of the American Chemical Society (ACS), Materials Research Society (MRS), Biophysical Society (BPS), American Association for the Advancement of Science (AAAS), and Royal Society of Chemistry (UK)

### Invited Talks and Seminars

- 2018 Gordon Research Conference on "Biointerface Science," Lucca (Barga), Italy, June 17-22, 2018 (Scheduled)
- 2018 62nd Annual Meeting of The Biophysical Society, Symposium on "Interrogating Membrane Organization and Dynamics," San Francisco, CA Feb. 17- Feb. 21 (Scheduled)
- 2018 2018 International Symposium on Chemical Biology, Geneva, Switzerland, Jan. 10-Jan.12 (Scheduled)
- 2017 Bioengineering Dept Seminar, University of California, Berkeley, CA, Aug. 30
- 2017 TETHMEM 2017 Workshop, Schloss Schönbrunn, Vienna, Austria, Aug. 7-ug.9, 2017
- 2017 Discussion Leader, Gordon Research Conference on Complex Active & Adaptive Material Systems, Ventura, CA, Jan. 29, 2017
- 2016 MSE-Colloquium@NTU, Nanyang Technological University, Singapore, Sept. 14, 2016
- 2016 252nd Fall ACS National Meeting, "Nanoparticles for Measuring/Controlling Cell Signaling," Philadelphia, PA Aug 21-Aug 25, 2016
- 2016 Telluride Workshop on 'Complexity in the Chemistry and Physics of Lipid Membranes," Telluride, CO, July 4-July 8, 2016
- 2016 Gordon Research Conference on "Biointerface Science," Les Diablerets, Switzerland, June 12-June 17, 2016
- 2016 MRS Spring Meeting, "Bioinspired Dynamic Materials - Synthesis, Engineering and Applications," Phoenix, AZ, Mar. 28- Apr. 1, 2016
- 2016 Kyoto University Winter School 2016, "From Materials to Life: Multidisciplinary Challenges," Kyoto, Japan, Feb. 25, 2016
- 2015 Chemical Engineering Seminar, Pennsylvania State University, Dec. 2015
- 2015 Tethered Membranes Workshop, , Singapore, Nov. 2015
- 2015 Chemistry of Materials and Interfaces Workshop, UPMC/Sorbonne- Workshop, Paris, France, Sept. 28-Oct.1.
- 2015 Hierarchical Dynamics in Soft Materials and Biological Matter, Kyoto, Japan, Sept 23-26, 2015
- 2015 MRSEC Seminar, Duke University, Feb., 2015
- 2014 Interdisciplinary Graduate School Distinguished Seminar Speaker, Nanyang Technological University, Singapore, Oct.
- 2014 2014 International Biophysics Congress, IUPAB, Brisbane, Australia, August
- 2014 Gordon Research Conference on Biointerfaces, Lucca (Barga), Italy, June
- 2014 Chalmers Soft Matter Graduate School, Chalmers University, Sweden, June
- 2014 SCELSE Seminar, Nanyang Technological University, Singapore, June
- 2014 ACS Annual Meeting, Colloids & Interfaces, Dallas, TX, March
- 2013 Keynote Lecture, Biophysics Meeting, Melbourne, Australia Nov. 24
- 2013 Biomaterials Session, The AVS Annual Meeting, Long Beach, CA Oct. 27
- 2013 Dept Seminar, Chemical and Biomolecular Engineering, NYU-Poly, Brooklyn,

Oct. 16

2013 Nanyang Technological University, College of Engineering Distinguished Visiting Speaker Seminar, Singapore Sept 26

2013 Seoul National University, WCU Seminar, Seoul, Korea May 23

2012 HAMLET Conference, Lund University, Sweden, Dec.

2012 Indo-US Workshop on Biomembranes, Bangalore, India, Dec.

2012 Workshop on Engineered Membranes, Univ. Leeds, UK, Sept

2012 Faraday Discussions on Membrane Biophysics, London, UK, Sept.

2012 Gordon Research Conference, Biointerfaces, Switzerland, May

2012 10+10 UC-Peking Univ. Forum on Chemical Biology, Chengdu, China

2012 Membrane Mechanics, ACS Annual Meeting, San Diego, CA, March

2011 Chemistry Department, Indian Institute of Technology, Mumbai, India, Dec.

2011 Austrian Institute of Technology and BOKU, Vienna, Austria, Oct.

2011 School of Biological Sciences, Nanyang Tech. University, Singapore, Aug.

2011 ICMAT Int. Conf. Mater. Adv. Tech. Singapore, June 26

2011 Nanoscience Center, Copenhagen University, Denmark, May 19th

2011 Chalmers University, Sweden, April 5th

2011 Florida State University, Biology, Feb. 14

2011 Emory University, Chemistry, Atlanta, Feb. 15

2011 City University of New York, NY Mar. 7

2010 Linkoping University, Sweden, Dec. 16

2010 Sossman Symposium Honoring Jeff Brinker, Houston, TX

2010 ICMR Summer School, Biological Interfaces, Santa Barbara

2010 NIH Annual Nanomedicine Meeting, Asilomar, CA

2010 Chemistry Seminar, Univ. of California, Riverside, Feb. 24

2010 Biosensors Workshop, Nat'l Univ. of Singapore, Feb. 4

2009 Sandia National Laboratories, Livermore, CA Nov.

2009 Chemistry College, Shaanxi Normal University, Xi'an, China, Nov.

2009 Research Center for Applied Sciences, Academia Sinica, Taipei, Taiwan, Oct.

2009 College of Engineering, Chang-Gung University, Linkou, Taiwan, Oct

2009 Biomolecular Materials Contractor's Meeting, DOE, VA, Sept.

2009 Workshop on Soft & Active Matter, Danghua Univ., Shanghai, China, May

2009 Nanoscience Seminar, The Molecular Foundry, LBL

2009 Nanomedicine Development Center Meeting, Bethesda, MD

2009 ACS Annual Meeting, Salt Lake City, UT

#### **Student and Post-Doctoral Researchers**

**Graduate Students (4):** Shiva Emami (Food Science), Sean Hong (Applied Science), Jeremy Sanborn (Applied Science), Wan-Chih Su (Chemistry) **Post-Docs (2):** Dr. Sowmya Purushothaman (NTU/UC Davis, Ph.D., Cambridge), Dr. Stacy M. Copp (UC President's Post-Doctoral Fellow, Ph.D., UC Santa Barbara)

#### **Graduated Student Alumni (16, 2008-2016):**

- (1) Dr. Doug L. Gettel (Ph.D., Chemical Engineering, 2016), Sutro Biopharma, Inc., San Francisco, CA
- (2) Dr. Josh Hansen (Ph.D., Biophysics, 2015), Faculty, Pomona College
- (3) Dr. Sean Gillmore (Ph.D., Applied Science, 2013), Post-Doc, LLNL
- (4) Dr. Lobat Tayebi (Ph. D., Applied Science, 2012), Asst. Professor, Marquette University
- (5) Dr. Eric Kendall (Ph. D., Chemical Engineering, 2011), Research Professor, Univ. of Maryland
- (6) Dr. Daniel Bricarello (Ph.D. Applied Science, 2011), Fellow., FFHI, UC Davis
- (7) Dr. Christopher Babayco (Ph.D., Chemistry, 2011) , Asst. Prof., Columbia Univ., MO
- (8) Dr. Michael Howland (Ph. D., Chemical Engineering, 2010), Staff Scientist, Genentech
- (9) Dr. Adrian M. Brozell (Ph.D., Biophysics, 2010), Co-Founder, NanoZ llc, Palo Alto, CA

- (10) Dr. Rita El-Khoury (Ph.D., Chemistry, 2009), L'Oreal
- (11) Dr. Alan Szmodis (Biophysics, Ph.D., 2008) Co-Founder, Nano-Oasis, CA,)
- (12) Dr. Andrea Michelle Smith (Biophysics, Ph.D. 2008), Staff Scientist, Joint Bio-Energy Institute,
- (13) Dr. Babak Sanii (Applied Science, Ph. D. 2008), Asst. Professor at Claremont McKenna College
- (14) Calvin Yang, M.S., Biomedical Engineering)
- (15) Sennur Turgut (M.S., Applied Science)
- (16) Cristina Tcheyan (M. S., Applied Science, Currently at Google)

#### Post-Doc and Senior Researcher Alumni (6)

- (1) Dr. Chanel K. Yee (Now at Amgen, Thousand Oaks, CA);
- (2) Dr. Madhuri Vinchurkar (Indian Institute Technology, Bombay (Mumbai), India);
- (3) Dr. Sanhita Dixit (Now at SRI, Palo Alto, CA);
- (4) Dr. Annapoorna Butti, Assoc. Prof., Guru Nanak University, Hyderabad, India;
- (5) Ann Oliver (Ph. D., Zoology, UC Davis, Now Lecturer, American River College)
- (6) Dr. Thomas Wilkop (Project Scientist, Ph.D., 2001, Sheffield Univ. UK)

#### Recent Teaching

- 1. How Things Work: Conceptual Physics, Eng 010 – A lower division Undergraduate course with enrollments from several colleges and professional schools (2002-present)
- 2. Living Matter: Physical Biology of The Cell, A graduate course across Biophysics, Materials Science, and Biomedical Engineering Graduate Groups

#### List of publications (reverse chronological) [ORCID ID: 0000-0002-5927-4968]

- 1. "Pulsatile lipid vesicles under osmotic stress," Morgan Chabanon, James C.S. Ho, Bo Liedberg, Atul N. Parikh, Padmini Rangamani, **Biophysical Journal** 112, 1682–1691, 2017 [ [Cover](#)].
- 2. "Spontaneous formation of nanometer scale tubular vesicles in aqueous mixtures of lipid and block copolymer amphiphiles," Seng Koon Lim, Andrew Wong, Hans-Peter M. de Hoog, Padmini Rangamani, Atul N. Parikh, Madhavan Nallani, Sara Sandin, and Bo Liedberg, **Soft Matter** 13, 1107-1115 (2017) [ [Cover](#)].
- 3. "Spontaneous vesiculation and pH-induced disassembly of a lysosomotropic detergent: impacts on lysosomotropism and lysosomal delivery," Ana María Villamil Giraldo, Timmy Fyrner, Stefan Wennmalm, Atul N. Parikh, Karin Ollinger, and Thomas Ederth **Langmuir** 32, 13566-13575 2016
- 4. "Brownian Dynamics of Electrostatically Adhering Nano-Vesicles on a Membrane Surface Induces Domains and Probes Viscosity," Seyed R. Tabaei, Jurriaan J. J. Gillissen, Min Chul Kim, James Ho C.S., Bo Liedberg, Atul N. Parikh, Nam-Joon Cho, **Langmuir**, 32,5445–5450, 2016
- 5. "Continuity of Monolayer-Bilayer Junctions for Localization of Lipid Raft Microdomains in Model Membranes," Yong-Sang Ryu, Nathan J. Wittenberg, Jeng-Hun Suh, Sang-Wook Lee, Youngjoo Sohn, Sang-Hyun Oh, Atul N. Parikh, and Sin-Doo Lee **Scientific Reports** 6, Art. 26823, **2016**
- 6. "Cholesterol Partition and Condensing Effect in Phase Separated Ternary Mixture Lipid Multilayers," Yicong Ma, Sajal K. Ghosh, David A. Dilena, Sambhunath Bera, Laurence B. Lurio, Atul N. Parikh, Sunil K. Sinha, **Biophysical Journal** 100, 1355–1366,2016
- 7. "Mixing Water, Transducing Energy, Shaping Membranes: Autonomously Self-regulating Giant Vesicles," James Ho C. S., Padmini Rangamani, Bo Liedberg, Atul N. Parikh, **Langmuir** 32, 2151–2163,2016 [ [Cover](#)] [[Invited Feature Article](#)]
- 8. "Cholesterol-enriched microdomain formation induced by viral-encoded, membrane active amphipathic peptide," Joshua M. Hanson\*, Douglas L. Gettel\*, Seyed R. Tabaei, Joshua Jackman, Min Chul Kim, Darryl Y. Sasaki, Jay T. Groves, Bo Liedberg, Nam-Joon

- Cho, Atul N. Parikh, **Biophysical Journal** 110, 176-187, **2016**
9. "Protein receptor-independent plasma membrane remodeling by HAMLET: a tumoricidal protein-lipid complex," Aftab Nadeem, Jeremy Sanborn, Douglas L. Gettel, James Ho C.S., Anna Rydström, Viviane N. Ngassam, Thomas Kjær Klausen, Stine Falsig Pedersen, Matti Lam, Atul N. Parikh\* Catharina Svanborg\*, **Scientific Reports** 5, Art. 16432, **2015**.
  10. "Medium Matters: Order through fluctuations? Atul N. Parikh, **Biophysical Journal** 108, 2751-2753, **2015** [[New and Notable Commentary](#)]
  11. "Lipid Membrane Deformation Accompanied by Disk-to-Ring Shape Transition of Cholesterol-rich Domains," Yong-Sang Ryu, Daehan Yoo, Nathan J Wittenberg, Luke R. Jordan, Sin-Doo Lee, Atul N. Parikh, and Sang-Hyun Oh, **Journal of the American Chemical Society (Communication)** 137, 8692–8695, **2015**
  12. "Influence of Vesicle Size and Aqueous Solvent on Intact Phospholipid Vesicle Adsorption on Oxidized Gold Monitored Using Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy," Elyse N. Towns, Atul N. Parikh, and Donald P. Land **Journal of Physical Chemistry C** 119, 2412-2418, **2015**
  13. "Observation of stripe superstructure in the beta-two-phase co-existence region of cholesterol-phospholipid mixtures in supported membranes," Seyed R. Tabaei, Joshua A. Jackman, Bo Liedberg, Atul N. Parikh\*, Nam-Joon Cho\*, **Journal of the American Chemical Society (communication)** 136, 16962–16965, **2014** (\*Joint Corresponding Authorship)
  14. "Oscillatory phase separation in giant lipid vesicles induced by transmembrane osmotic differentials," Kamila Oglęcka, Padmini Rangamani, Bo Liedberg, Rachel S. Kraut & Atul N. Parikh **eLife** 3, e03695,, **2014** [[eCover](#)]
  15. "Reconstituting ring-rafts in bud-mimicking topography of model membranes," Yong-Sang Ryu, In-Ho Lee, Jeng-Hun Suh, Seung Chul Park, Soojung Oh, Luke R. Jordan, Nathan J. Wittenberg, Sang-Hyun Oh, Noo Li Jeon, ByoungHo Lee, Atul N. Parikh\* & Sin-Doo Lee\*, **Nature Communications** 5, Art. No. 4507, **2014** (\*Joint Corresponding Authorship)
  16. "Formation of Cholesterol-Rich Supported Membranes Using Solvent-Assisted Lipid Self-Assembly," Seyed R. Tabaei, Joshua A Jackman, Seong-Oh Kim, Bo Liedberg, Wolfgang Knoll, Atul N. Parikh, and Nam-Joon Cho, **Langmuir** 30, 13345–13352, **2014**
  17. "Mixing, diffusion, and percolation in binary supported membranes containing mixtures of lipids and amphiphilic block copolymers," Douglas L. Gettel, Jeremy Sanborn, Mira Patel, Hans-Peter de Hoog, Bo Liedberg, Madhavan Nallani, and Atul N. Parikh, **Journal of the American Chemical Society (communication)** 136, 10186–10189, **2014**
  18. "Thermal annealing triggers collapse of biphasic supported lipid bilayers into multilayer islands," Sean F. Gilmore, Darryl Y. Sasaki, and Atul N. Parikh **Langmuir** 17, 4962-4969 **2014**
  19. "Analysis of lipid phase behavior and protein conformational changes in nanolipoprotein particles upon entrapment in sol-gel derived silica," Wade F Zeno, Silvia Hilt, Kannan K Aravagiri, Subhash Risbud, John C. Voss, Atul N. Parikh, and Marjorie L. Longo, **Langmuir** in press, **2014**
  20. "On-demand self-assembly of supported membranes using sacrificial, anhydrobiotic sugar coats," Thomas Wilkop, Jeremy Sanborn, Ann Oliver, Josh Hanson, Atul N. Parikh, **Journal of the American Chemical Society (communication)** 136, 60-63 **2014**
  21. "Characterization of Buried Metal-Molecule-Metal Junctions Using Fourier Transform Infrared Microspectroscopy," Christopher B. Babayco, Donald P. Land, Atul N. Parikh\*, and Richard A. Kiehl\*, **Review of Scientific Instruments** 85, 094103, 2014 (\*Joint Corresponding Authorship)
  22. "Third-Party ATP Sensing in Polymersomes: a label-free assay of enzyme reactions in vesicular compartments," Umit Hakan Yildiz, Hans-Peter M. De Hoog, Zhikang Fu, Nikodem Tomczak, Atul N. Parikh, Madhavan Nallani, Bo Liedberg **Small** 10, 442-447, **2014** [[Cover](#)]
  23. "Lithographically-defined macroscale modulation of lateral fluidity and phase separation realized via patterned nanoporous silica supported phospholipid bilayers," Eric L. Kendall, Viviane N. Ngassam, Sean F. Gilmore, C. Jeff Brinker, and Atul N. Parikh **Journal of the**



- American Chemical Society (communication)** 135, 15718–15721 **2013**
24. "Interaction of sphingomyelinase with sphingomyelin-containing supported membranes," Viviane N. Ngassam, Ann E. Oliver, Phuong N. Dang, Eric L. Kendall, Sean F. Gilmore, and Atul N. Parikh **Soft Matter** 9, 10413-10420 **2013**
  25. "The role of squalene in the organization of monolayers derived from lipid extracts of *Halobacterium salinarum*," Sean F. Gilmore, Andrew Yao, Zipora Tietel, Tobias Kind, Marc Facciotti, and Atul N. Parikh **Langmuir** 29, 7922–7930 (**2013**)
  26. "Evolution of Conformational Order During Self-Assembly of *n*-Alkanethiols on Hg Droplets: An Infrared Spectro-microscopy Study," Christopher Babayco, Pauline Chang, Donald P. Land, Richard A. Kiehl, and Atul N. Parikh **Langmuir** 29, 8203–8207 (**2013**)
  27. "Lipid Membrane Domains for the Selective Adsorption and Surface Patterning of Conjugated Polyelectrolytes," Darryl Y. Sasaki, Nicole Zawada, Sean F. Gilmore, Prihatha Narasimmaraj, Mari Angelica A. Sanchez, Jeanne C. Stachowiak, Carl C. Hayden, Hsing-Lin Wang, Atul N. Parikh, and Andrew P. Shreve **Langmuir** 29, 5214–5221 (**2013**)
  28. "Transient pearling and vesiculation of membrane tubes under osmotic gradients," Jeremy Sanborn, Kamila Oglecka, Rachel S. Kraut, Atul N. Parikh, **Faraday Discussions** 161, 167-176 (**2013**) [[+Discussion](#)]
  29. "Long-range inter-layer alignment of intra-layer domains in stacked lipid bilayers," Lobat Tayebi, Yicong Ma, Daryoosh Vashae, Gang Chen, Sunil K. Sinha, Atul N. Parikh, **Nature Materials** 11, 1074–1080 (**2012**). [[Cover](#)] [[News & Views](#)]
  30. "The Influence of Spin-Labeled Fluorene Compounds on the Assembly and Toxicity of the A-beta Peptide," Jitka Petrlova, Tamás Kálai, Izumi Maezawa, Robin Altman, Ghimire Harishchandra, Hyun-Seok Hong, Daniel A. Bricarello, Atul N. Parikh, Gary A. Lorigan, Lee-Way Jin, Kálmán Hideg, John C. Voss, **Plos ONE** 7, e35443 (**2012**).
  31. "Osmotic Gradients Induce Bio-reminiscent Morphological Transformations in Giant Unilamellar Vesicles," Kamila Oglecka, Jeremy Sanborn, Atul N. Parikh, Rachel S. Kraut, **Frontiers in Membrane Physiology and Biophysics** 3, Art. 120, 1-11 (**2012**).
  32. "Preparation, Characterization, and Surface Immobilization of Native Vesicles Obtained by Mechanical Extrusion of Mammalian Cells," Huawen Wu, Ann E. Oliver, Viviane N. Ngassam, Chanel K. Yee, Atul N. Parikh\*, Yin Yeh\*, **Integrative Biology**, 4, 685-692 (**2012**).
  33. "Inhibiting Host-Pathogen Interactions Using Membrane-Based Nanostructures," Daniel Bricarello, Mira A. Patel, Atul N. Parikh, **Trends in Biotechnology**, 30, 323-330 (**2012**)
  34. "Use of Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy to Study Lactosylceramide and GD3 DMPC Bilayers," Mateo Hernandez, Elyse Towns, Jessica Moore, Hyeyoung Lee, Bruce German, Carlito Lebrilla, Atul N. Parikh, Donald P. Land, **Colloids and Surfaces B: Biointerfaces**, 94, 374-377 (**2012**).
  35. "Stability of Uni- and Multilamellar Spherical Vesicles," L. Tayebi, D. Vashae, and A. N. Parikh, **Chemphyschem** 13, 314-22 (**2012**).
  36. "A Comparison of Detergent Action on Supported Lipid Monolayers and Bilayers," V. N. Ngassam, M. C. Howland, A. Sapuri-Butti, N. Rosidi, and A. N. Parikh, **Soft Matter** 8, 3734-38 (**2012**).
  37. "In Vivo Lipidomics Using Single-Cell Raman Spectroscopy," H. W. Wu, J. V. Volponi, A. E. Oliver, A. N. Parikh, B. A. Simmons, and S. Singh, **Proceedings of the National Academy of Sciences of the United States of America** 108, 3809-14 (**2011**).
  38. "Liposil-Supported Lipid Bilayers as a Hybrid Platform for Drug Delivery," S. K. Shen, E. Kendall, A. Oliver, V. Ngassam, D. D. Hu, and A. N. Parikh, **Soft Matter** 7, 1001-05 (**2011**).
  39. "Programmed Bending Reveals Dynamic Mechanochemical Coupling in Supported Lipid Bilayers," S. F. Gilmore, H. Nanduri, and A. N. Parikh, **Plos ONE** 6, (**2011**).
  40. "A Stripe-to-Droplet Transition Driven by Conformational Transitions in a Binary Lipid-Lipopolymer Mixture at the Air-Water Interface," R. J. El-Khoury, S. L. Frey, A. W. Szmodis, E. Hall, K. J. Kauffman, T. E. Patten, K. Y. C. Lee, and A. N. Parikh, **Langmuir** 27, 1900-06 (**2011**).
  41. "Ph Responsive Polymer Cushions for Probing Membrane Environment Interactions," R. J. El-Khoury, D. A. Bricarello, E. B. Watkins, C. Y. Kim, C. E. Miller, T. E. Patten, A. N.

- Parikh\*, and T. L. Kuhl\*, **Nano Letters** 11, 2169-72 (2011).
42. "Substrate Suppression of Thermal Roughness in Stacked Supported Bilayers," C. M. DeCaro, J. D. Berry, L. B. Lurio, Y. C. Ma, G. Chen, S. Sinha, L. Tayebi, A. N. Parikh, Z. Jiang, and A. R. Sandy, **Physical Review E** 84, (2011).
  43. "The Targeted Delivery of Multicomponent Cargos to Cancer Cells by Nanoporous Particle-Supported Lipid Bilayers," C. E. Ashley, E. C. Carnes, G. K. Phillips, D. Padilla, P. N. Durfee, P. A. Brown, T. N. Hanna, J. W. Liu, B. Phillips, M. B. Carter, N. J. Carroll, X. M. Jiang, D. R. Dunphy, C. L. Willman, D. N. Petsev, D. G. Evans, A. N. Parikh, B. Chackerian, W. Wharton, D. S. Peabody, and C. J. Brinker, **Nature Materials** 10, 389-97 (2011). [\[Cover\]](#) [\[News & Views\]](#)
  44. "Reconstituted lipoprotein: a versatile class of biologically-inspired nanostructures," Daniel A. Bricarello, Jennifer T. Smilowitz, Angela M. Zivkovic, J. Bruce German, Atul N. Parikh **ACS Nano**, 5, 42-57 (2011)
  45. "Thermally Induced Phase Separation in Supported Bilayers of Glycosphingolipid and Phospholipid Mixtures," A. W. Szmodis, C. D. Blanchette, M. L. Longo, C. A. Orme, and A. N. Parikh, **Biointerphases** 5, 120-30 (2010).
  46. "Order at the Edge of the Bilayer: Membrane Remodeling at the Edge of a Planar Supported Bilayer Is Accompanied by a Localized Phase Change," A. M. Smith, M. Vinchurkar, N. Gronbech-Jensen, and A. N. Parikh, **Journal of the American Chemical Society** 132, 9320-27 (2010). [\[JACS Select\]](#)
  47. "Substituent-Dominated Structure Evolution During Sol-Gel Synthesis: A Comparative Study of Sol-Gel Processing of 3-Glycidoxypropyltri-Methoxysilane and Methacryloxypropyltrimethoxysilane," S. K. Shen, P. P. Sun, W. Li, A. N. Parikh\*, and D. D. Hu\*, **Langmuir** 26, 7708-16 (2010).
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