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

Other Appointments

2012-Present	Visiting Professor, School of Materials Science & Engineering, Nanyang Technological University, Singapore
2011-2013	Gåstprofessor (Rector's Visiting Fellow, Sabbatical), Applied Physics, Linkoping University, Sweden
2009-2012	Chair, Designated Emphasis in Biophotonics, Graduate Studies, UC Davis
2014-	Advisory Board, ACM Biolabs, Singapore
2011-	Scientific Advisory Board, ZNano, LLC, Napa, CA
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

2014-2016	Chair, 2016 Gordon Research Conference on Biointerface Science Les Diablerets, Switzerland, June 2016 (Scheduled, June 12-17)
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
2007-present	Co-Editor, *Biointerphases*, Elsevier Journal of Biomaterials
2011	Faculty 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 Microelectronic 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, Lawerence Berkeley National Laboratory, Univ. of Montreal (Canada), Emory University, Academia Sinica (Taiwan), University of New Mexico, Illinois Institute of Technology, Chalmbers University, Sweden

Various	Journal Article Reviewer for *Accounts of Chemical Research, ACS Nano, ACS Chemical Biology, Analytical Chemistry, Angewandte Chimie, Advanced Materials, Biointerphases, 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)

Recent Invited Talks and Seminars

2016	Telluride Workshop on 'Complexity in the Chemistry and Physics of Lipid Membranes," Telluride, CO, July 4-July 8, 2016 (Scheduled)
2016	Gordon Research Conference on "Biointerface Science," Les Diablerets, Switzerland, June 12-June 17, 2016 (Scheduled)
2016	MRS Spring Meeting, "Bioinspired Dynamic Materials - Synthesis, Engineering and Applications," Phoenix, AZ, Mar. 28- Apr. 1, 2016 (Scheduled)
2016	Kyoto University Winter School 2016, "From Materials to Life: Multidisciplinary Challenges," Kyoto, Japan, Feb. 25, 2016 (Scheduled)
2015	Chemical Engineering Seminar, Pennsylvania State University, Dec. 2015 (Scheduled)
2015	Tethered Membranes Workshop, , Singapore, Nov. 2015
2015	Chemistry of Materials and Interfaces Workshop, UPMC/Sorbonne- Workshop, Paris, France, Sept. 28-0ct.1.
2015	Hierarchical Dynamics in Soft Materials and Biological Matter, Kyoto, Japan, Sept 23-26, 2015 (scheduled)
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): Doug Gettel (Chemical Eng.),Sean Huang (Applied Science), Jeremy Sanborn (Applied Science), Wan-Chih Su (Chemistry) **Co-advised (2):** Ozge Kurtulus (Chemical Eng, w E. Seker), Elyse Townes (w Don Land)

Research Specialist/Lab Manager (1): Viviane Ngassam

Graduated Student Alumni (15, 2008-2015):

(1) Dr. Josh Hansen (Ph.D., Biophysics, 2015), Lecturer, Woodland Comm. College
(2) Dr. Sean Gillmore (Ph.D., Applied Science, 2013), Post-Doc, LLNL
(3) Dr. Lobat Tayebi (Ph. D., Applied Science, 2012), Asst. Professor, Marquette University
(4) Dr. Eric Kendall (Ph. D., Chemical Engineering, 2011), Research Professor, Univ. of Maryland
(5) Dr. Daniel Bricarello (Ph.D. Applied Science, 2011), Fellow., FFHI, UC Davis
(6) Dr. Christopher Babayco (Ph.D., Chemistry, 2011) , Asst. Prof., Columbia Univ., MO
(7) Dr. Michael Howland (Ph. D., Chemical Engineering, 2010), Staff Scientist, Genentech
(8) Dr. Adrian M. Brozell (Ph.D., Biophysics, 2010), Co-Founder, NanoZ llc, Palo Alto, CA
(9) Dr. Rita El-Khouri (Ph.D., Chemistry, 2009), L'Oreal
(10) Dr. Alan Szmodis (Biophysics, Ph.D., 2008) Co-Founder, Nano-Oasis, CA,)
(11) Dr. Andreia Michelle Smith (Biophysics, Ph.D. 2008), Staff Scientist, Joint Bio-Energy Institute,
(12) Dr. Babak Sanii (Applied Science, Ph. D. 2008), Asst. Professor at Claremont McKenna College
(13) Calvin Yang, M.S., Biomedical Engineering)
(14) Sennur Turgut (M.S., Applied Science)
(15) 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

How Things Work: Conceptual Physics, Eng 010 – A lower division Undergraduate course with enrollments from several colleges and professional schools (2002-present)
Optical Methods in Biophysics, EAD 172 (UG)/ EAD271 (Grad)
Biophysical Methods, BPH 290

4. Molecular, Cellular, and Tissue Biomechanics, BIM 241
5. Senior Design, Optical Science & Engineering, EAD 141
6. Chemical Engineering Lab, ECH 155B
7. Soft and Biological Matter, EMSE (Scheduled, Spring 2016)

LIST OF PUBLICATIONS (reverse chronological) [#, 121; H-index, 33 (Oct. 2015); Cites, 7012]

1. *"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,* in press, **2015**
2. *"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)**.
3. *"Medium Matters: Order through fluctuations*? Atul N. Parikh, **Biophysical Journal** 108, 2751-2753, **2015** [**New and Notable Commentary**] **()**
4. *" 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**
5. *"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**
6. *"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) ()
7. *"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]** ()
8. *"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) ()
9. *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** ()
10. *"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** ()
11. *"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**
12. *"Analysis of lipid phase behavior and proteinconformational 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**

13. *"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**
14. *"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)
15. "*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]** ()
16. *"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**
17. "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**
18. "*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**)
19. "*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)**
20. "*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)**
21. *"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]** ()
22. "*Long-range inter-layer alignment of intra-layer domains in stacked lipid bilayers*," Lobat Tayebi, Yicong Ma, Daryoosh Vashaee, Gang Chen, Sunil K. Sinha, Atul N. Parikh, **Nature Materials** 11, 1074–1080 (**2012). [Cover] [News & Views]**
23. "*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).**
24. "*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).** ()
25. "*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).**
26. "*Inhibiting Host-Pathogen Interactions Using Membrane-Based Nanostructures*," Daniel Bricarello, Mira A. Patel, Atul N. Parikh, **Trends in Biotechnology**, 30, 323-330 (**2012)**
27. "*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).**
28. "*Stability of Uni- and Multillamellar Spherical Vesicles*," L. Tayebi, D. Vashaee, and A. N. Parikh, **Chemphyschem** 13, 314-22 (**2012**).

29. "*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**).
30. "*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**).
31. "*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**).
32. "*Programmed Bending Reveals Dynamic Mechanochemical Coupling in Supported Lipid Bilayers*," S. F. Gilmore, H. Nanduri, and A. N. Parikh, **Plos ONE** 6, (**2011**).
33. "*A Stripe-to-Droplet Transition Driven by Conformational Transitions in a Binary Lipid-Lipopolymer Mixture at the Air-Water Interface*," R. J. El-Khouri, 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**).
34. "*Ph Responsive Polymer Cushions for Probing Membrane Environment Interactions*," R. J. El-Khouri, 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**).
35. "*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**).
36. "*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]**
37. *"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**)
38. "*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**).
39. "*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]**
40. "*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**).
41. "*Frustrated Phase Transformations in Supported, Interdigitating Lipid Bilayers*," B. Sanii, A. W. Szmodis, D. A. Bricarello, A. E. Oliver, and A. N. Parikh, **Journal of Physical Chemistry B** 114, 215-19 (**2010**).
42. "*Templating Membrane Assembly, Structure, and Dynamics Using Engineered Interfaces*," A. E. Oliver, and A. N. Parikh, **Biochimica Et Biophysica Acta-Biomembranes** 1798, 839-50 (**2010**).
43. "*Salt-Induced Lipid Transfer between Colloidal Supported Lipid Bilayers*," E. L. Kendall, E. Mills, J. W. Liu, X. M. Jiang, C. J. Brinker, and A. N. Parikh, **Soft Matter** 6, 2628-32 (**2010**). **[Cover]**
44. "*Model Studies of Membrane Disruption by Photogenerated Oxidative Assault*," M. C. Howland, and A. N. Parikh, **Journal of Physical Chemistry B** 114, 6377-85 (**2010**).
45. "*Lipid Bilayers on Topochemically Structured Planar Colloidal Crystals: A Versatile Platform for Optical Recording of Membrane-Mediated Ion Transport*," A. M. Brozell, S. Inaba, and A. N. Parikh, **Soft Matter** 6, 5334-41 (**2010**).
46. "*Ganglioside Embedded in Reconstituted Lipoprotein Binds Cholera Toxin with Elevated Affinity*," D. A. Bricarello, E. J. Mills, J. Petrlova, J. C. Voss, and A. N. Parikh, **Journal of Lipid Research** 51, 2731-38 (**2010**).

47. "*A Comparison of Lateral Diffusion in Supported Lipid Monolayers and Bilayers*," C. B. Babayco, S. Turgut, A. M. Smith, B. Sanii, D. Land, and A. N. Parikh, **Soft Matter** 6, 5877-81 (**2010**).
48. "*Lactosomes: Structural and Compositional Classification of Unique Nanometer-Sized Protein Lipid Particles of Human Milk*," N. Argov-Argaman, J. T. Smilowitz, D. A. Bricarello, M. Barboza, L. Lerno, J. W. Froehlich, H. Lee, A. M. Zivkovic, D. G. Lemay, S. Freeman, C. B. Lebrilla, A. N. Parikh, and J. B. German, **Journal of Agricultural and Food Chemistry** 58, 11234-42 (**2010**).
49. "*Nanofiber-Supported Phospholipid Bilayers*," F. Yi, J. Xu, A. M. Smith, A. N. Parikh, and D. A. Lavan, **Soft Matter** 5, 5037-41 (**2009**).
50. "*Early Stages of Oxidative Stress-Induced Membrane Permeabilization: A Neutron Reflectometry Study*," H. L. Smith, M. C. Howland, A. W. Szmodis, Q. J. Li, L. L. Daemen, A. N. Parikh, and J. Majewski, **Journal of the American Chemical Society** 131, 3631-38 (**2009**).
51. "*Amino Acid Catalyzed Bulk-Phase Gelation of Organoalkoxysilanes Via a Transient Co-Operative Self-Assembly*," S. K. Shen, D. D. Hu, P. P. Sun, X. R. Zhang, and A. N. Parikh, **Journal of Physical Chemistry B** 113, 13491-98 (**2009**).
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