

## **Darren John Lipomi, Ph.D.**

Curriculum Vitae  
Professor & Chair  
Department of Nano and Chemical Engineering  
Hajim School of Engineering  
University of Rochester

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Please see [lipomigroup.org](http://lipomigroup.org) for most up-to-date listing of publications and laboratory personnel and [youtube.com/user/djlipomi](https://www.youtube.com/user/djlipomi) for up-to-date lectures, research presentations, and professional development resources

## **Research Interests**

Organic materials chemistry of polymers and nanostructured materials exhibiting unusual combinations of electronic and mechanical properties; adhesives, absorbers, and charge-transport layers for flexible solar cells; polymeric and nanostructured materials for mechanical biosensors; materials and devices for understanding and manipulating the tactile sense; new processes for activation of somatosensory neurons

## **Employment**

Department of Chemical Engineering  
Affiliate, Materials Science program  
University of Rochester  
Professor, 2024 – present  
Department Chair, 2024 – present

Department of Nano and Chemical Engineering  
Affiliate, Materials Science program  
University of California, San Diego  
Assistant Professor, 2012 – 2016  
Associate Professor with tenure, 2016 – 2019  
Professor, 2019 – 2024  
Faculty Director, IDEA Engineering Student Center, 2021 – 2022  
Associate Dean for Students, 2022 – 2024

## **Education**

**Stanford University**, Department of Chemical Engineering, Stanford, CA  
Intelligence Community Postdoctoral Fellow, 2010 – 2012  
Research Focus: materials and nanostructures for stretchable devices: organic solar cells and electronic skin  
Advisor: Professor Zhenan Bao

### **Stanford University Graduate School of Business**

Certificate, Program in Innovation and Entrepreneurship  
January 2011 – May 2011

**Harvard University**, Department of Chemistry and Chemical Biology, Cambridge, MA

Ph.D., Chemistry, June 2010; A.M. Chemistry, May 2008  
American Chemical Society Graduate Fellowship, Division of Organic Chemistry, 2009 – 2010  
Thesis: “Unconventional Approaches to Micro- and Nanofabrication for Electronic and Optical Applications”  
Advisor: Professor George M. Whitesides

**Boston University**, Department of Chemistry, Boston, MA

B.A., Chemistry, minor in Physics, *Summa cum laude*, May 2005  
Beckman Scholars Program Award (Fellowship), 2003 – 2005  
Thesis: “Total Synthesis of Basiliskamides A and B and Asymmetric Synthesis Using Solid Catalysts”  
Advisor: Professor James S. Panek

## Honors and Awards

- Distinguished Teaching Award, Academic Senate, San Diego Division (2023)
- NSF BRITE-Pivot Award (2022)
- Presidential Early Career Award for Scientists and Engineers (PECASE; nominated 2015, conferred 2019)
- Inducted to Sigma Xi, The Scientific Research Honor Society (2019)
- Lectureship and Best Paper Award, *Chemistry of Materials* (2018)
- Campus Award for Equity and Diversity, *UCSD* (2017)
- Hall of Fame, *Hilton Central High School, Hilton NY* (2016)
- Graduate Teaching Award, *UCSD Graduate Student Association* (2016)
- NIH Director's New Innovator Award (\$2.2M), *NIH* (2015–2020)
- Best Teacher of the Year, *UCSD Department of NanoEngineering* (2013–2014)
- National Science Foundation BRIGE Award (\$175k), *NSF* (2013–2015)
- Air Force Office of Scientific Research Young Investigator Program award (\$360k), *AFOSR* (2013–2016)
- Grand Prize Winner, Distinguished Young Scientist Seminar Series, *U. Washington, Dept. of Chem. Eng.* (2011)
- Postdoctoral Fellowship (at Stanford University), *U.S. Intelligence Community* (2010)
- Fieser Award Lecture (\$200), one of six chosen by peers, *Dept. of Chem. & Chem. Biol. Harvard Univ.* (2010)
- Grand Prize (\$2,500), University Science Writing Competition, *ScientificBlogging.com* (2009)
- Silver Award (\$200), Graduate Student Awards, *Materials Research Society* (2009)
- Elected Chair, Graduate Student & Post-Doc Council, *Dept. of Chem. & Chem. Biol. Harvard Univ.* (2009)
- Winter School for Graduate Students at IIT Kanpur, India *National Nanotechnology Infrastructure Network* (2008)
- Graduate Fellowship (\$25,000), *American Chemical Society, Division of Organic Chemistry* (2008–2009)
- Christensen Prize (\$2,000 travel award), *Harvard University* (2008)
- Beckman Scholars Program (\$16,000, 2-year fellowship), *The Arnold and Mabel Beckman Foundation and Boston University Undergraduate Research Opportunities Program* (2003–2005)
- Phi Beta Kappa, *Boston University* (2005)
- Mason Award (\$1,000, top graduating seniors overall, three awarded) *Boston University* (2005)
- Undergraduate Research Award (\$500, best senior research presentation) *Boston University* (2005)
- Freshman Chemistry Award (one of two, top student in General Chemistry, class of ~500) *Boston University* (2002)

## Research Support (~\$8.1M federal/state/private support)

- UCSD Institute for Engineering in Medicine, Galvanizing Engineering in Medicine program (co-PI with Fadel Zeidan), **\$10,000**, 7/22-6/23
- UCSD Center for Wearable Sensors, Materials for Printed Haptic Actuators (co-PI with Tina Ng), Lipomi share **\$25,000**, 5/22 – 4/23
- UCSD Center for Wearable Sensors, Materials for Stable Conductive Polymeric Electrodes (co-PI with Shadi Dayeh), Lipomi share **\$25,000**, 5/20 – 4/21
- Department of Energy (DOE, co-PI with David Fenning), “Materials and thermal processes for PV module recycling” Lipomi share, **\$612,500**
- Dutch Science Council (NWO, “Dutch NSF”), “Can You Touch Red? Cross-Modal Correspondences in Synesthetes from Tactile to Visual Properties,” Lipomi share **\$90,000**
- Air Force Office of Scientific Research (AFOSR), “Beyond Stretchability: Hardness, Strength, and Resilience in Semiconducting Polymers” **\$450,000**, 9/22-8/25
- California Energy Commission (co-PI, PI is David Fenning), Lipomi share **\$420,000**, 10/19 – 9/23
- National Science Foundation, CMMI BRITE-Pivot, Biomechanics and Mechanobiology Program (PI), **\$600,000**, 1/22-12/24

- National Science Foundation, CBET Disability & Rehabilitation Engineering Program, (PI, co-PI is Eileen Shinn, MD Anderson Cancer Center), Lipomi share **\$300,000**, 9/22-8/25
- National Science Foundation, MRSEC (participating faculty), 1 GSR + \$10,000 materials per year 9/20-
- National Institutes of Health, PECASE supplement to DP2 (PI), **\$473,000**, 7/20-6/21
- UCSD Center for Wearable Sensors + PepsiCo Gatorade Sport Sciences Institute, Printable Haptic Glove (co-PI with Patrick Mercier and CK Cheng), Lipomi share **\$65,000**, 5/20 – 4/22
- National Science Foundation (PI, co-PI is VS Ramachandran, UCSD), Lipomi share **\$300,000**, 9/19-8/22
- National Institutes of Health R21 (PI, co-PI is Mark Mercola, Stanford), Lipomi share **\$200,000**, 5/20-4/22
- California Energy Commission (co-PI; Lead PI is David Fenning), Lipomi share **\$300,000**, 1/20 – 6/23
- Air Force Office of Scientific Research (AFOSR), “Mechanisms of Elasticity in Semiconducting Polymers,” **\$450,000**, 6/19 – 5/22.
- UCSD Center for Wearable Sensors, Printable Haptic Glove (co-PI with Tina Ng), Lipomi share **\$25,000**, 5/18 – 4/19
- Wearable Device for Sleep Apnea Monitoring (co-PI with Patrick Mercier), Lipomi share **\$30,000**, 5/17 – 4/18
- Academic Senate Travel Award, UCSD, **\$1,200**, 7/17
- Corning Gift (for support to Samuel Root), **\$30,000**, 6/17
- Gift from B Quest Charitable Fund made through Benefunder, **\$75,000**, 4/17, 4/18, 12/19
- Chancellor’s Research Excellence Scholarship (PI for support to Cody Carpenter), **\$25,000**, 12/17
- California Energy Commission (co-PI; Lead PI is David Fenning), Lipomi share **\$220,000**, 8/17 – 3/21
- NIH Diversity Supplement to NIH Director’s New Innovator Award, NIH, **\$55,520**, 7/16
- Academic Senate Travel Award, UCSD, **\$1,125**, 7/16
- Center for Wearable Sensors (UCSD), “Virtual Touch” and “The Language of Glove: Wireless Transmission and Decoding of Hand Gestures using a Piezoresistive Nanocomposite,” (co-PI with Patrick Mercier and Benjamin Bratton) **\$65,000**, 5/16–4/17
- Center for Wearable Sensors (UCSD), “Stretchable Transparent Barrier Films using Graphene on Ultra-Thin Elastomers,” (Lead PI; co-PI is Sheng Xu) **\$50,000**, 5/16–4/17
- Air Force Office of Scientific Research (AFOSR), “High-Performance Semiconducting Elastomers,” (co-PIs: Gaurav Arya and Shyue-Ping Ong) **\$450,000**, 6/16 – 5/19.
- UCSD Supercomputer Center, XSEDE, NSF DMR150066, “Computational modeling and design of nanostructured materials,” (co-PI: Gaurav Arya) 1,838,848 SUs, value **\$60,873**, 10/15–10/16
- National Institutes of Health (NIH) Director’s New Innovator Award, “Stretchable, Biodegradable, and Self-Healing Semiconductors for Wearable and Implantable Sensors,” **\$2,193,330**, 9/15–8/20.
- Air Force Office of Scientific Research (AFOSR) Young Investigator Program, “Molecular Engineering for Mechanically Resilient and Stretchable Electronic Polymers and Composites,” **\$360,000**, 4/13 – 3/16.
- National Science Foundation Broadening Research Initiation Grants in Engineering (BRIGE) Program, “Photovoltaic Mapping of Gradients to Determine Structure-Function Relationships in Organic and Nanocrystalline Solar Cells,” **\$175,000**, 11/1/13 – 10/31/15.
- Corporate Gift, JSR Corp., **\$60,000**, 10/15–9/17.
- “Modeling the Mechanical Properties of Organic Semiconductors for Flexible, Printed Devices,” Hellman Foundation, **\$46,983**, 7/15–6/16.
- Gift from GrollTex, Inc., **\$20,000**, 9/5/13.

- Faculty Career Development Program, UCSD, **\$16,000**, 6/15–5/16
- Academic Senate Travel Award, UCSD, **\$1,945**, 06/15.
- Academic Senate Travel Award, UCSD, **\$500**, 11/12.
- Academic Senate Travel Award, UCSD, **\$350**, 3/14.
- Additional support of approximately **\$850,000** in the form of several external fellowships awarded to students with my mentorship

### **Industrial/Startup Scientific Advising**

Agave Biosensors (green electronics materials for flexible circuit boards for distributed sensing, founded by former student, Dr. Julián Ramírez)

Scientific Advisor

2023 – present

Pyrames (wearable mechanical sensor startup founded using IP developed at Stanford)

Inventor / Shareholder

2020 – present

Lithios, Inc. (Lithium recovery company founded by former student, Dr. Mohammad Alkhadra)

Shareholder

2022 – present

Hyperspace Lighting Company (Tech-Art consumer electronics company founded by former student, Dr. Timothy O'Connor)

Unofficial advisor

2019 – present

GrollTex, Inc. (Spin-out company from my group founded by former student, Dr. Aliaksandr Zaretski)

Scientific Advisor

2013 – present

Benefunder (scientific philanthropy)

Advisory board

2020 – present

### **Editorial Advisory Boards**

*Chemistry of Materials*

*ACS Applied Nano Materials*

*ACS Omega*

*Materials Horizons*

### **Teaching (average “recommend instructor” rating >98%; 100% in most quarters)**

- Instructor, REV 2, “Transfer Year Experience,” Fall 2023
- Program Director, Summer Engineering Institute, Summer 2022, 2023
- Instructor, REV 20 and 88, “Succeeding in Undergraduate Research,” Spring 2020, 2021
- Professor, NANO 11 “Introduction to Nanoengineering” Winter 2020-2024; Summer 2023
- Professor, NANO 101 “Introduction to Nanoengineering” Winter 2017, 2018, 2019, 2020 (2 sections)
- Professor, Course Designer, NANO / CHEM 241 “Organic Nanomaterials” Spring 2015 and Winter 2016, UCSD

- Professor, Course Designer, NANO / CENG 134 “Polymeric Materials” Winter 2015 and 2016, Spring 2017 and 2018, UCSD
- Professor, Course Designer, Revelle College 87 (Freshman Seminar) “Interdisciplinary Thinking and the Unity of Knowledge” Winter 2014, UCSD
- Professor, Course Designer, NanoEngineering 103 “Foundations in Nanoengineering: Biochemical Principles” Spring 2013 and 2014, UCSD
- Guest Lecturer, NANO 1 “Nanoengineering Seminar” Winter 2013 and 2014, UCSD
- Professor, NanoEngineering 202 / Chemical Engineering 212 “Intermolecular and Surface Forces” Fall 2012, 2013, 2014, 2015, 2016, 2017, 2018 UCSD
- Head Teaching Fellow for Core Science A-50 “Invisible Worlds: Micro- and Nanothings. Science, Technology, and Public Policy” Fall 2006, Harvard University, Core Curriculum, Instructors: Profs. George M. Whitesides and Mara Prentiss
- Teaching Fellow for Chemistry 20 “Organic Chemistry” Spring 2006, Harvard University, Department of Chem. & Chem. Biol., Instructor: Prof. Garry Proctor
- Undergraduate Teaching Assistant, CH 203, 204 “Organic Chemistry Lab” Fall 2004 – Spring 2005, Boston University, Department of Chemistry, Instructor: Prof. Georgia Weinstein

### **Publications (15,921 citations, h-index 55, Google Scholar)**

127. Darren J. Lipomi and Robert S. Ramji, 2024. *Introduction to Nanoengineering*, Royal Society of Chemistry, 511 pp.
126. Samuel J. Edmunds, Armando D. Urbina, Hannah E. Fishman, Yi Qie, Rafael A. Montalvo, Noel Sebastien D. Mallari, Marc N. Levy, Rachel Blau, Abdulhameed Abdal, Andrea M. Armani, Tse Nga Ng, Nathan A. Romero, and Darren J. Lipomi 2024. Photography-Inspired Patterned Vapor Phase Polymerization of Conductive PEDOT on Rigid and Stretchable Substrates. *ACS Macro Letters* 6:2738-2747.
125. Alexander X. Chen, Nicholas A. Azpiroz, Sarah E. Brew, Antonio M. Valdez, Guillermo L. Esparza, Yi Qie, Noah J. Valdez, Rachel Blau, Jordan A. Bunch, Taralyn J. Perry, Tarek Rafeedi, Abdulhameed Abdal, Ignasi Simon, Duncan W. Harwood, Darren J. Lipomi, David P. Fenning 2024. [Silver-free, intrinsically conductive adhesives for shingled solar cells](#). *Cell Reports Physical Science*.
124. Dean Rockwell, Lisa Trahan, and Darren J. Lipomi, 2024. Social Community in Action: How two undergraduate engineering scholar programs facilitate involvement in communities of practice. *Studies in Engineering Education*. 5:50-72.
123. Eileen H. Shinn, Adam S. Garden, Susan K. Peterson, Dylan J. Leupi, Minking Chen, Rachel Blau, Laura Becerra, Tarek Rafeedi, Julian Ramirez, Daniel Rodriguez, Finley VanFossen, Sydney Zehner, Patrick Mercier, Joseph Wang, Kate Hutcheson, Ehab Hanna, Darren J. Lipomi 2023. Iterative patient testing of a stimuli-responsive swallowing activity sensor to promote extended user engagement during the first year after radiation. *JMIR Cancer* 10:e47359.
122. Tarek Rafeedi, Abdulhameed Abdal, Beril Polat, Katherine A. Hutcheson, Eileen H. Shinn, and Darren J. Lipomi. [Wearable, epidermal devices for assessment of swallowing function](#). *NPJ Flexible Electronics* 7:52.
121. Jason X. Tuermer-Lee, Allison Lim, Louis Ah, Rachel Blau, Yi Qie, Wade Shipley, Laure V. Kayser, Samantha M. Russman, Andrea R. Tao, Shadi A. Dayeh, and Darren J. Lipomi. [Synthesis of PEDOT:PSS Brushes Grafted from Gold Using ATRP for Increased Electrochemical and Mechanical Stability 2023](#). *ACS Macro Lett.* 12:1718-1726.

120. Alexander X. Chen, Guillermo L. Esparza, Ignasi Simon, Sean P. Dunfield, Yi Qi, Jordan A. Bunch, Rachel Blau, Allison Lim, Henry Zhang, Sarah E. Brew, Finnian M. O'Neill, David P. Fenning, and Darren J. Lipomi 2023. Effect of Additives on the Surface Morphology, Energetics, and Contact Resistance of PEDOT:PSS. *ACS Appl. Mater. Interfaces*. <https://doi.org/10.1021/acsami.3c08341>
119. Laura L. Becerra, Tarek Rafeedi, Sankaran Ramanarayanan, Ian Frankel, Juliana Miller, Alexander X. Chen, Yi Qie, Darren J. Lipomi, Harinath Garudadri, Tse Nga Ng 2023. Bidirectional Venturi Flowmeter Based on Capacitive Sensors for Spirometry. *Adv. Mater. Technol.* <https://doi.org/10.1002/admt.202300627>
118. Alexander X. Chen and Darren J. Lipomi 2023. Navigating the graduate application process through mentorship. *TRECHM*. <https://doi.org/10.1016/j.trechm.2023.04.009>
117. Lisa Trahan, Jessica Baldis, Jasmine L. Sadler, and Darren J. Lipomi 2023. WIP: Approaches to pairing proactive advising and teaching students how to learn. *American Society for Engineering Education*.
116. Alexander X. Chen, Silpa Pazhankave, Jordan Bunch, Allison Lim, Kartik Choudhary, Guillermo Esparza, Rory Runser, Christian Hoover, and Darren J. Lipomi, 2023. Adhesive Properties of Semiconducting Polymers: Poly(3-alkylthiophene) as an Ersatz Glue. *Chemistry of Materials* 8:3329-3342.
115. Jiaonan Sun, Ke Ma, Zih-Yu Lin, Yuanhao Tang, Dharini Varadharaja, Alexander X. Chen, Harindi R. Atapattu, Yoon How Lee, Ke Chen, Bryan W. Boudouris, Kenneth R. Graham, Darren J. Lipomi, Jianguo Mei, Brett M. Savoie, Letian Dou 2023. Tailoring Molecular-Scale Contact at Perovskite/Polymeric Hole Transporting Material Interface for Efficient Solar Cells. *Advanced Materials* <https://doi.org/10.1002/adma.202300647>
114. Weiliang Yao, Mehdi Chouchane, Wei-Kang Li, Shuang Bai, Zhao Liu, Letian Li, Alexander X. Chen, Baharak Sayahpour, Ryosuke Shimizu, Ganesh Raghavendran, Marshall Schroeder, Yu-Ting Chen, Darren H. S. Tan, Bhagath Sreenarayanan, Crystal K. Waters, Allison Sichler, Benjamin Gould, Dennis.J. Kountz, Darren J Lipomi, Minghao Zhang, and Ying Shirley Meng 2023. A 5V-class Cobalt-free Battery Cathode with High Loading Enabled by Dry Coating. *Energy Environ. Sci.* <https://doi.org/10.1021/acs.jpcc.2c08843>
113. Yifei Luo et al. 2023. Technology Roadmap for Flexible Sensors. *ACS Nano*. <https://doi.org/10.1021/acsnano.2c12606>
112. Andrew T. Kleinschmidt, Alexander X. Chen, Robert S. Ramji, Tod A. Pascal, and Darren J. Lipomi 2023. Decoupling Planarizing and Steric Energetics to Accurately Model the Rigidity of  $\pi$ -Conjugated Polymers. *J. Phys. Chem. B*. [10.1039/D2EE03840D](https://doi.org/10.1039/D2EE03840D)
111. Guillermo L. Esparza, Moses Kodur, Alexander X. Chen, Benjamin Wang, Jordan A. Bunch, Jaden Cramlet, Rory Runser, David P. Fenning, and Darren J. Lipomi 2023. Solvent-Free Transfer of Freestanding Large-Area Conjugated Polymer Films for Optoelectronic Applications. *Advanced Materials*. [10.1002/adma.202207798](https://doi.org/10.1002/adma.202207798)
110. Beril Polat, Tarek Rafeedi, Laura Becerra, Alexander X. Chen, Kuanjung Chiang, Vineel Kaipu, Rachel Blau, Patrick P. Mercier, Chung-Kuan Cheng, Darren J. Lipomi External 2023. Measurement of Swallowed Volume During Exercise Enabled by Stretchable Derivatives of PEDOT:PSS, Graphene, Metallic Nanoparticles, and Machine Learning. *Advanced Sensor Research*. [10.1002/adsr.202200060](https://doi.org/10.1002/adsr.202200060)
109. Tarek Rafeedi and Darren J. Lipomi 2022. Multiple Pathways to Stretchable Electronics (commentary). *Science*. [10.1126/science.adf5112](https://doi.org/10.1126/science.adf5112)
108. Alexander X. Chen, Jeremy D. Hilgar, Anton A. Samoylov, Silpa S. Pazhankave, Jordan A. Bunch, Kartik Choudhary, Guillermo L. Esparza, Allison Lim, Xuyi Luo, Hu Chen, Rory Runser, Iain McCulloch, Jianguo Mei, Christian Hoover, Adam D. Printz, Nathan A. Romero, and Darren J. Lipomi 2022. Increasing the

- Strength, Hardness, and Survivability of Semiconducting Polymers by Crosslinking. *Adv. Mater. Interfaces*. 10.1002/admi.202202053
107. Andrew T. Kleinschmidt, Alexander X. Chen, Tod A. Pascal, and Darren J. Lipomi 2022. Computational Modeling of Molecular Mechanics for the Experimentally Inclined. *Chem. Mater.* <https://doi.org/10.1021/acs.chemmater.2c00292>
106. Rachel Blau, Alexander X. Chen, Beril Polat, Laura L. Becerra, Rory Runser, Beeta Zamanimeymian, Kartik Choudhary, and Darren Lipomi 2022. Intrinsically Stretchable Block Copolymer Based on PEDOT:PSS for Improved Performance in Bioelectronic Applications. *ACS Appl. Mater Interfaces*. 14, 4823–4835
105. Kartik Choudhary, Alexander X Chen, Gregory M. Pitch, Rory Runser, Armando Urbina, Tim J Dunn, Moses Kodur, Andrew T Kleinschmidt, Benjamin G Wang, Jordan A Bunch, David P Fenning, Alexander L Ayzner, and Darren J Lipomi 2021. Comparison of the Mechanical Properties of a Conjugated Polymer Deposited Using Spin Coating, Interfacial Spreading, Solution Shearing, and Spray Coating. *ACS Appl. Mater. Interfaces*. <https://doi.org/10.1021/acsami.1c13043>
104. Rory Runser, Moses Kodur, Justin H. Skaggs, Deniz N. Cakan, Juliana B. Foley, Mickey Finn III, David P. Fenning, Darren J Lipomi 2021. Stability of Perovskite Films Encapsulated in Single- and Multi-Layer Graphene Barriers. *ACS Appl. Energy Mater.* <https://doi.org/10.1021/acsaem.1c02240>
103. Mickey Finn III, Jeremy Treiber, Mahmoud Issa, Christian J. Martens, Colin P. Feeney, Lehna Ngwa, Charles Dhong, Darren J. Lipomi 2021. Survival of polymeric microstructures subjected to interrogatory touch. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0255980>
102. Beril Polat, Laura L Becerra, Po-Ya Hsu, Vineel Kaipu, Patrick P Mercier, Chung-Kuan Cheng, Darren J Lipomi 2021. Epidermal Graphene Sensors and Machine Learning for Estimating Swallowed Volume. *ACS Appl. Nano Mater.* 4:8126-8134.
101. Guillermo L. Esparza and Darren J. Lipomi, 2021. Solid-Phase Deposition: Conformal Coverage of Micron-Scale Relief Structures with Stretchable Semiconducting Polymers. 3:988–995.
100. Darren J. Lipomi, 2021. Style Guides and the Garlic, Shallots, and Butter of Scientific Writing. *Chemistry of Materials*, 33:3865–3867.
99. Steven Schara, Rachel Blau, Derek C. Church, Jonathan K. Pokorski, and Darren J. Lipomi, 2021. Polymer Chemistry for Haptics, Soft Robotics, and Human-Machine Interfaces. *Advanced Functional Materials*, <https://doi.org/10.1002/adfm.202008374>
98. Andrew T. Kleinschmidt and Darren J. Lipomi, 2021. Unfavourable interactions enable stability (News & Views). *Nature Materials*, <https://doi.org/10.1038/s41563-020-00889-x>
97. Alexander X. Chen, Andrew T. Kleinschmidt, Kartik Choudhary, and Darren J. Lipomi, 2020. Beyond Stretchability: Strength, Toughness, and Elastic Range in Semiconducting Polymers. *Chemistry of Materials*, 32:7582-7601.
96. Daren J. Lipomi, David P. Fenning, Shyue Ping Ong, Nisarg J. Shah, Andrea R. Tao, and Liangfang Zhang, 2020. Exploring Frontiers in Research and Teaching: NanoEngineering and Chemical Engineering at UC San Diego. *ACS Nano* DOI: 10.1021/acsnano.0c06256
95. Yichen Zhai, Zhijian Wang, Kye-Si Kwon, Shengqiang Cai, Darren J. Lipomi, and Tse Nga Ng, 2020. Printing Multi-Material Organic Haptic Actuators. *Advanced Materials*, 2002541.
94. Julian Ramírez, Beril Polat, and Darren Lipomi, 2020. Metallic Nanoislands on Graphene for Biomechanical Sensing. *ACS Omega*, 26:15763.

93. Julian Ramírez, Armando D. Urbina, Andrew T. Kleinschmidt, Mickey Finn III, Samuel J. Edmunds, Guillermo L. Esparza, and Darren J. Lipomi, 2020. Exploring the limits of sensitivity for strain gauges of graphene and hexagonal boron nitride decorated with metallic nanoislands. *Nanoscale*, 12:11209.
92. Cody W. Carpenter, Marigold G. Malinao, Tarek A. Rafeedi, Daniel Rodriguez, Siew Ting Melissa Tan, Nicholas B. Root, Kyle Skelil, Julian Ramírez, Beril Polat, Samuel E. Root, Vilayanur S. Ramachandran, and Darren J. Lipomi, 2020. Electropneumotactile Stimulation: Multimodal Haptic Actuators Enabled by a Stretchable Conductive Polymer on Inflatable Pockets. 1901119.
91. Darren J. Lipomi, 2020. [Video for Active and Remote Learning](#). *Trends in Chemistry*, 2:483.
90. Colin V. Keef, Laure V. Kayser, Stazia Tronboll, Cody W. Carpenter, Nicholas B. Root, Mickey Finn III, Timothy F. O'Connor, Sami N. Abuhamdieh, Daniel M. Davies, Rory Runser, Ying Shirley Meng, Vilayanur S. Ramachandran, and Darren J. Lipomi, 2020. [Virtual Texture Generated Using Elastomeric Conductive Block Copolymer in a Wireless Multimodal Haptic Glove](#). *Advanced Intelligent Systems*, 2000018.
89. Darren J. Lipomi, Charles Dhong, Cody W. Carpenter, Nicholas B. Root, and Vilayanur S. Ramachandran, 2019. [Organic Haptics: Intersection of Materials Chemistry and Tactile Perception](#). *Advanced Functional Materials*, 1906850.
88. Rory Runser, Samuel E. Root, Derick E. Ober, Kartik Choudhary, Alex X. Chen, Charles Dhong, Armando D. Urbina, and Darren J. Lipomi, 2019. [Interfacial Drawing: Roll-to-Roll Coating of Semiconducting Polymer and Barrier Films onto Plastic Foils and Textiles](#). *Chemistry of Materials*. 31:9078-9086.
87. Charles Dhong, Rachel Miller, Nicholas B. Root, Sumit Gupta, Laure V. Kayser, Cody W. Carpenter, Kenneth J. Loh, Vilayanur S. Ramachandran, Darren J. Lipomi, 2019. Role of indentation depth and contact area on human perception of softness for haptic interfaces. *Science Advances*, 5:eaw8845.
86. Elizabeth L. Melenbrink, Kristan M. Hilby, Kartik Choudhary, Sanket Samal, Negar Kazerouni, John Luke McConn, Darren J. Lipomi, and Barry C. Thompson, 2019. [Influence of Acceptor Side-Chain Length and Conjugation-Break Spacer Content on the Mechanical and Electronic Properties of Semi-Random Polymers](#). *ACS Applied Polymer Materials*. 1:1107-1117.
85. Mohammad A. Alkhadra, Andrew T. Kleinschmidt, Samuel E. Root, Daniel Rodriguez, Adam D. Printz, Suchol Savagatrup, and Darren J. Lipomi. Mechanical Properties of Semiconducting Polymers. Chapter in *Handbook of Conducting Polymers*, Fourth Edition, 2019. Chapter 7, pp. 249-176.
84. Julian Ramírez, Daniel Rodriguez, Armando D. Urbina, Anne M. Cardenas, and Darren J. Lipomi. [Combining High Sensitivity and Dynamic Range: Wearable Thin-Film Composite Strain Sensors of Graphene, Ultrathin Palladium, and PEDOT:PSS](#). *ACS Applied Nano Materials*. 2019. Vol. 2, pp. 2222-2229.
83. Cody W. Carpenter, Siew Ting Melissa Tan, Colin Keef, Kyle Skelil, Marigold Malinao, Daniel Rodriguez, Mohammad A. Alkhadra, Julian Ramírez, and Darren J. Lipomi. [Healable thermoplastic for kinesthetic feedback in wearable haptic devices](#). *Sensors and Actuators A* 2019. Vol. 288, pp. 79-85.
82. Laure V. Kayser and **Darren J. Lipomi**, 2019. [Stretchable Conductive Polymers and Composites Based on PEDOT and PEDOT:PSS](#). *Advanced Materials*. 1806133.
81. Andrew T. Kleinschmidt and **Darren J. Lipomi**, 2018. [Stretchable Conjugated Polymers: A Case Study in Topic Selection for New Research Groups](#). *Accounts of Chemical Research*. 51:3134-3143.



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films of carbon nanotubes. *Nature Nanotechnology*, 6: 788–792. \*Equal contribution. Featured in web and print publications of over fifty organizations, including *Physics World*, *Wired*, *AIChE Progress*, *PCWorld*, *Popular Science*, *CNET*, and *Gizmodo*.

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2. **Darren J. Lipomi** and James S. Panek, 2005. Three-component, room temperature crotylation catalyzed by solid-supported Brønsted acid: Enantioselective synthesis of homoallylic carbamates. *Organic Letters*, 7:4701–4704.

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### Patents & Inventions

4. Zaretski, A. V.; **Lipomi, D. J.** Graphene-Based Multimodal Sensors. Patent Application US15288687.
3. Zaretski, A. V.; **Lipomi, D. J.** Method for the Fabrication and Transfer of Graphene. Patent US 20150371848 A1.
2. Chen, L. Y.; Tee, B. C.-K.; Chortos, A. L.; Schwartz, G.; Tse, V.; **Lipomi, D. J.**; Wong, H.-S. P.; McConnell, M. V.; Bao, Z. Passive and Wireless Pressure Sensor. Patent US 9848775B2
1. **Lipomi, D.**; Vosguertichian, M.; Tee, B. C.-K.; Hellstrom, S. Bao, Z. Nanostructures with Strain-Induced Resistance. Patent US 9212960 B2.

### Invited Institutional Seminars

49. Macromolecular Science and Engineering Program, University of Michigan, October 26<sup>th</sup>, 2022
48. Department of Nanoengineering, University of Waterloo, April 14<sup>th</sup>, 2022
47. Department of Materials Science and Engineering, Stanford University, October 15<sup>th</sup>, 2021
46. Department of Materials Science and Engineering, University of Illinois Urbana-Champaign, April 13<sup>th</sup>, 2021
45. Department of Polymer Engineering, University of Southern Mississippi, September 16<sup>th</sup>, 2020
44. “Mechanical Properties of Semiconducting Polymers” Molecular Foundry, Lawrence Berkeley National Laboratory, February 12<sup>th</sup>, 2019.
43. “Mechanical Properties of Semiconducting Polymers” Department of Chemical & Environmental Engineering, University of Arizona, October 29<sup>th</sup>, 2018.
42. “Mechanical Properties of Semiconducting Polymers” MRSEC Seminar, University of Texas at Austin, October 11<sup>th</sup>, 2018.
41. “Molecularly Stretchable Electronics for Healthcare & Energy” Molecular Engineering Institute, University of Chicago, October 3<sup>rd</sup>, 2018.
40. “Mechanical Properties of Semiconducting Polymers” Program in Polymers & Soft Matter, Massachusetts Institute of Technology, March 28<sup>th</sup>, 2018.
39. “Mechanical Properties of Semiconducting Polymers” Department of Chemical Engineering, Special Seminar, Stanford University, January 23<sup>rd</sup>, 2018.
38. “Mechanical Properties of Semiconducting Polymers” Department of Chemistry, University of California, Santa Cruz, January 22<sup>nd</sup>, 2018.
37. “Molecularly Stretchable Electronics for Healthcare & Energy” Department of Mechanical Engineering, Seoul National University, January 16<sup>th</sup>, 2018.
36. “Molecularly Stretchable Electronics for Energy, Healthcare, and Virtual Touch” Department of Chemistry, Georgetown University, October 19<sup>th</sup>, 2017.
35. “Molecularly Stretchable Electronics for Energy, Healthcare, and Virtual Touch” Department of Chemical Engineering, University of California, Davis, October 12<sup>th</sup>, 2017.
34. “Molecularly Stretchable Electronics for Healthcare & Energy” Department of Chemistry, Boston University, December 1<sup>st</sup>, 2016.
33. “Molecularly Stretchable Electronics for Healthcare & Energy” Center for Nanoscale Systems, Harvard University, November 30<sup>th</sup>, 2016.
32. “Molecularly Stretchable Electronics for Healthcare & Energy” Department of Chemistry, University of Southern California, November 2<sup>nd</sup>, 2016.

31. “Molecularly Stretchable Electronics for Healthcare & Energy” Department of Materials Science and Engineering, Nanyang Technological University, July 3<sup>rd</sup>, 2016.
30. “Molecularly Stretchable Electronics for Healthcare & Energy” Department of Chemistry, University of California, Riverside, May 16<sup>th</sup>, 2016.
29. “Molecularly Stretchable Electronics for Healthcare & Energy” Northwestern University, Materials Research Science and Engineering Center (MRSEC), May 11<sup>th</sup>, 2016.
28. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, Department of Materials Science and Engineering, May 5<sup>th</sup>, 2016.
27. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” University at Buffalo, April 22<sup>nd</sup>, 2016
26. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” University of California, San Diego, Department of Mechanical and Aerospace Engineering, February 1<sup>st</sup>, 2016.
25. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” University of California, Irvine, Department of Chemical Engineering and Materials Science, October 9<sup>th</sup>, 2015.
24. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” Samsung Advanced Institute of Technology, September 18<sup>th</sup>, 2015.
23. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” KAIST, September 17<sup>th</sup>, 2015.
22. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” Yonsei University, Department of Mechanical Engineering, September 16<sup>th</sup>, 2015.
21. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” Duke University, Department of Chemistry, March 24<sup>th</sup>, 2015.
20. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” North Carolina State University, Department of Chemical and Biomolecular Engineering, March 23<sup>rd</sup>, 2015.
19. “Molecularly Stretchable Electronics for Wearable & Mechanically Robust Devices for Healthcare & Energy” Jacobs School Technology Symposium, Tokyo, Japan, December 10<sup>th</sup>, 2014.
18. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Department of Materials Science and Engineering, Carnegie Mellon University, October 31<sup>st</sup>, 2014.
17. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Department of Chemical Engineering, The Pennsylvania State University, August 28<sup>th</sup>, 2014.
16. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Stratingh Institute for Chemistry, University of Groningen, Groningen, Netherlands, June 19<sup>th</sup>, 2014.
15. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Risø DTU National Laboratory for Sustainable Energy, Roskilde, Denmark, June 18<sup>th</sup>, 2014.
14. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Department of Materials Science and Engineering, UC Los Angeles, June 6<sup>th</sup>, 2014.
13. “Mechanical Properties of Organic Semiconductors for Mechanically Robust and Stretchable Electronics” Materials Research Laboratory, UC Santa Barbara, June 5<sup>th</sup>, 2014.
12. “Elastic Semiconducting Polymers for Mechanically Robust Solar Cells and Stretchable Electronics” Organic Seminar, Department of Chemistry and Biochemistry, UC San Diego, April 14<sup>th</sup>, 2014.
11. “Applications of Stretchable, Transparent Conductors and Semiconductors: Rubber Solar Cells & Electronic Skin” Intelligence Community Postdoctoral Fellowship Program Colloquium, Washington, DC, September 25<sup>th</sup>, 2012.

10. "Chemical-Mechanical Synthesis of Nanostructures for Applications in Electronics, Optics, and Energy" Beckman Scholars Program Award Alumni Lecture, Irvine, CA, August 4<sup>th</sup>, 2012.
9. "Green Approaches to Nanoscale Engineering: Rubber Solar Cells, Electronic Skin, and Unconventional Nanofabrication" Jacobs School of Engineering & Department of Nanoengineering, University of California, San Diego, March 14<sup>th</sup>, 2012.
8. "Chemical-Mechanical Approaches to Molecular & Nanoscale Engineering: Plasmonic Antennae, Rubber Solar Cells, and Electronic Skin" Department of Chemical & Biomolecular Engineering, University of Maryland, College Park, February 22<sup>nd</sup>, 2012.
7. "Chemical-Mechanical Approaches to Molecular & Nanoscale Engineering: Plasmonic Antennae, Rubber Solar Cells, and Electronic Skin" Department of Chemical & Biological Engineering, University of Colorado, Boulder, February 16<sup>th</sup>, 2012.
6. "Chemical-Mechanical Approaches to Molecular & Nanoscale Engineering: Plasmonic Antennae, Rubber Solar Cells, and Electronic Skin" Department of Chemical Engineering, University of Washington, February 6<sup>th</sup>, 2012.
5. "Chemical-Mechanical Approaches to Molecular & Nanoscale Engineering: Plasmonic Antennae, Rubber Solar Cells, and Electronic Skin" Department of Chemical Engineering and Texas Materials Institute, University of Texas at Austin, January 19<sup>th</sup>, 2012.
4. "Chemical-Mechanical Approaches to Nanoscale Optics & Electronics: Plasmonic Antennae, Rubber Solar Cells, and Electronic Skin" Department of Chemistry, University of California, Irvine, January 12<sup>th</sup>, 2012.
3. "Stretchable, Elastic Organic Solar Cells" Stanford Photonics Research Center, Stanford, CA, September 14<sup>th</sup>, 2011.
2. "Unconventional Processes and Materials for Micro- and Nanoscale Optics and Electronics" Distinguished Young Scientist Seminar Series, University of Washington, Dept. of Chemical Engineering, Seattle, WA, July 25<sup>th</sup>, 2011.
1. "Unconventional Fabrication of Nanostructures for Electronic & Optical Applications" Fieser Award Lecture, Harvard University Department of Chemistry and Chemical Biology, March 25<sup>th</sup>, 2010.

### Conference Abstracts (\*presenting author; invited talk)

- 97- Approximately 6 contributed conference talks per year given by students; approximately 4 invited conference talks given by me, per year, since 2018.
96. **Darren J. Lipomi**\*, Metallic nanoislands on graphene as sensors for measuring cell stiffness and electrophysiology, 256<sup>th</sup> American Chemical Society National Meeting, Boston, MA, August 21<sup>st</sup>, 2018, paper ID 3006921.
  95. **Darren J. Lipomi**\*, Methods for measuring and predicting the mechanical properties of semiconducting polymers, 256<sup>th</sup> American Chemical Society National Meeting, Boston, MA, August 20<sup>th</sup>, 2018, paper ID 2992836.
  94. **Darren J. Lipomi**\*, Mechanical properties of organic semiconductors for energy and virtual touch, 256<sup>th</sup> American Chemical Society National Meeting, Boston, MA, August 20<sup>th</sup>, 2018, paper ID 2990138.
  93. Cody W. Carpenter\*, Siew Ting Melissa Tan, Daniel Rodriguez, Kyle Skelil and **Darren J. Lipomi**, The Glass Transition Temperature as a Means of Kinesthetic Feedback, CIMTEC, Perugia, Italy, June 14<sup>th</sup>, 2018, abstract FA-3:L09
  92. Julian Ramirez\* , Daniel Rodriguez, and **Darren J. Lipomi**, Metallic Nanoislands on Graphene and Machine Learning for Monitoring Swallowing Activity in Head and Neck Cancer Patients, CIMTEC 8<sup>th</sup> Forum on New Materials, Perugia, Italy, June 13<sup>th</sup>, 2018, abstract FA-3:L05
  91. **Darren J. Lipomi**\*, Mechanical Properties of Organic Semiconductors, CIMTEC 8<sup>th</sup> Forum on New Materials, Perugia, Italy, June 12<sup>th</sup>, 2018, abstract FA-2:L01



90. Laure Kayser\*, Madeleine Russell, Daniel Rodriguez, Alexander Stein, and **Darren Lipomi**, Intrinsically Stretchable and Conductive Polyelectrolyte Complex for Wearable Organic Electronics, 101<sup>st</sup> Canadian Chemistry Conference, Edmonton, AB, May 29<sup>th</sup>, 2018, abstract CSC18707.
89. **Darren J. Lipomi**\*, Organic Haptics: Soft Materials for Artificial Touch, Electrochemical Society, Seattle, WA, May 14<sup>th</sup>, 2018.
88. Julian Ramirez\* , Daniel Rodriguez, and **Darren J. Lipomi**, Metallic Nanoislands on Graphene and Machine Learning for Monitoring Swallowing Activity in Head and Neck Cancer Patients, Materials Research Society Spring Meeting, Phoenix, AZ, April 6<sup>th</sup>, 2018, abstract NM11.14.02
87. Laure Kayser\*, Madeleine Russell, Alexander Stein, Daniel Rodriguez, and **Darren J. Lipomi**, Water-Soluble Conductive Elastomers for Stretchable Organic Electronics, Materials Research Society Spring Meeting, Phoenix, AZ, April 6<sup>th</sup>, 2018, abstract EP08.11.07.
86. Cody W. Carpenter\*, Charles Dhong, Nick Root, Daniel Rodriguez, Emily Abdo, Kyle Skelil, Mohammad Alkhadra, Julian Ramirez, Vilaynur Ramachandran and **Darren J. Lipomi**, Molecular Braille—Human Ability to Discriminate Surface Chemistry by Touch, Materials Research Society Spring Meeting, Phoenix, AZ, April 5<sup>th</sup>, 2018, abstract SM01.10.02
85. **Darren J. Lipomi**\*, Mechanical Properties of Organic Semiconductors, Materials Research Society Spring Meeting, Phoenix, AZ, April 5<sup>th</sup>, 2018, abstract MA02.06.03.
84. Charles Dhong\*, Rachel Miller and **Darren J. Lipomi**, Quantifying Tactile Perceptions of *Softness*—Indentation Depth, Contact Area and Young’s Modulus, Materials Research Society Spring Meeting, Phoenix, AZ, April 3<sup>rd</sup>, 2018, abstract SM01.03.09.
83. Charles Dhong\*, Samuel Edmunds and **Darren J. Lipomi**, Artificial Touch—Non-Contact Flow and Particle Measurements *via* Elastohydrodynamic Deformation with Graphene Nano-Island Sensors, Materials Research Society Spring Meeting, Phoenix, AZ, March 27<sup>th</sup>, 2018, abstract NM11.08.06
82. Fumitaka. Sugiyama, Andrew T. Kleinschmidt\*, Mohammad Alkhandra, Jeremy. Wan, Andrew Chiang, Daniel Rodriguez, Samuel E. Root, Suchol Savagatrup, and **Darren J. Lipomi**, Biodegradable and stretchable multi-block semiconducting copolymers, 255<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA, March 22<sup>nd</sup>, 2018, abstract PMSE 578.
81. Laure Kayser\*, Madeleine Russell, Alexander Stein, and **Darren J. Lipomi**, Synthesis of Water-Soluble Ionic Elastomers for Stretchable Organic Electronics, American Chemical Society Meeting, New Orleans, LA, March 22<sup>nd</sup>, 2018, abstract 2865692.
80. Charles Dhong\* and **Darren J. Lipomi**, Understanding fine textures in touch: The role of fingerprints in modulating sliding friction on surfaces and haptic devices, American Chemical Society National Meeting, New Orleans, LA, March 22<sup>nd</sup>, 2018, abstract COLL 748
79. Charles Dhong\* and **Darren J. Lipomi**, Optics-free, non-contact microfluidics with graphene nano-island strain sensors, American Chemical Society National Meeting, New Orleans, LA, March 19<sup>th</sup>, 2018, abstract ORGN 245
78. Andrew T. Kleinschmidt\*, Sam E. Root, Laure V. Kayser, Charles Dhong and **Darren J. Lipomi**, Correlating solvated structure and GPC data for conjugated polymers, 255<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA, March 18<sup>th</sup>, 2018, abstract PMSE 83.
77. **Darren J. Lipomi**\* “Metallic Nanoislands on Graphene for Cellular Electrophysiology and Cancer Monitoring” Materials Research Society Fall Meeting, Boston, MA, November 28<sup>th</sup>, 2017. BM06.05.03.
76. **Darren J. Lipomi**\* “Soft Materials for Artificial Touch” Materials Research Society Fall Meeting, Boston, MA, November 27<sup>th</sup>, 2017. BM03.02.05.
75. **Darren J. Lipomi**\* “Wearable Sensors and Actuators for Translating Gestures and Artificial Touch” Materials Research Society Fall Meeting, Boston, MA, November 27<sup>th</sup>, 2017. BM09.13.01
74. Charles Dhong\*, Cody Carpenter and **Darren Lipomi**, Artificial Touch—Actuating Fine Textures in Haptic Devices, Materials Research Society Fall Meeting, Boston, MA, November 29<sup>th</sup>, 2017, abstract BM09.07.08

73. Charles Dhong\* and **Darren Lipomi**, Understanding Artificial Touch—Modeling Friction for a Novel Classification of Surfaces in Haptic Devices, Materials Research Society Fall Meeting, Boston, MA, November 27<sup>th</sup>, 2017, abstract BM01.02.09
72. Samuel E. Root\*, Mohammad A. Alkhadra, **Darren J. Lipomi** “Unraveling the Thermomechanical Behavior of Semiconducting Polymers using Computer Simulations and Experiments”, Fall Meeting of the Materials Research Society, Boston, Massachusetts, December 2-5, 2017, poster presentation
71. Samuel E. Root\*, Mohammad A. Alkhadra, **Darren J. Lipomi** “Ionotactile Stimulation: Nonvolatile Ionic Gels for Human-Machine Interfaces”, Fall Meeting of the Materials Research Society, Boston, Massachusetts, December 2-5, 2017, oral presentation
70. **Darren J. Lipomi**\* “Mechanical Properties of Low-Bandgap Organic Semiconductors” AIChE National Meeting, Minneapolis, MN, November 30<sup>th</sup>, 2017.
69. **Darren J. Lipomi**\* “Metallic Nanoislands on Graphene for Cellular Electrophysiology and Wireless, Wearable Sensors” Materials Research Congress, Cancun, Mexico, August 24<sup>th</sup>, 2017.
68. **Darren J. Lipomi**\* “Smart Polymers for Virtual Touch” 3<sup>rd</sup> Functional Polymeric Materials Conference, Rome, Italy, July 10<sup>th</sup>, 2017.
67. Laure V. Kayser\*, Madeleine D. Russell, Mickey Finn III, Siew Ting Melissa Tan, Daniel Rodriguez, **Darren J. Lipomi** “RAFT polymerization of water-soluble ionic elastomers for stretchable organic electronics” 3<sup>rd</sup> Functional Polymeric Materials Conference, Rome, Italy, July 8<sup>th</sup>, 2017.
66. **Darren J. Lipomi**\* “Molecularly Stretchable Electronics for Energy and Healthcare” Workshop on Stretchable Bioelectronics, Hong Kong, May 16<sup>th</sup>, 2017.
65. **Darren J. Lipomi**\* “Organic Haptics: Smart Materials for Virtual Touch” MRS-Kavli Workshop on Stretchable Bioelectronics, April 22<sup>nd</sup>, 2017.54.
64. **Darren J. Lipomi**\* “Molecularly Stretchable Electronics for Energy and Healthcare” MRS Spring Meeting, Phoenix, AZ, April 21<sup>st</sup>, 2017. SM4.10.05.
63. Brandon C. Marin\*, **Darren J. Lipomi**. "A Piezoplasmonic Response in Metal Nanoislands—Optical Sensing of Strain in Biological Environments Using Low-Dimensional Metamaterials " Materials Research Society, Spring Meeting 2017. Phoenix, AZ. April 18th, 2017. Abstract ID 2607785
62. **Darren J. Lipomi**\* “Mechanical Properties of Low-Bandgap Organic Semiconductors” ACS Spring Meeting, San Francisco, CA. April 4<sup>th</sup>, 2017.
61. **Darren J. Lipomi**\* “Metallic Nanoislands on Graphene for Cellular Electrophysiology and Wireless, Wearable Sensors” ACS Spring Meeting, San Francisco, CA. April 2<sup>nd</sup>, 2017.
60. **Darren J. Lipomi**\* “Mechanical Properties of Low-Bandgap Organic Semiconductors” PanPoly. Guaraja, Sao Paulo, Brazil. March 23<sup>rd</sup>, 2017.
59. **Darren J. Lipomi**\* “Mechanical Properties of Low-Bandgap Organic Semiconductors” American Physical Society, New Orleans, LA. March 13<sup>th</sup>, 2017.
58. Samuel E. Root\*, Mohammad A. Alkhadra, **Darren J. Lipomi** “Mechanical Properties of Semiconducting Polymers: Bridging Computation and Experiment”, Pan-American Polymer Science Conference, Guaruja, Sao Paulo State, Brazil, March 22-25, 2017
57. **Darren J. Lipomi**\* “Mechanical Properties of Low-Bandgap Organic Semiconductors” MRS Fall Meeting. December 2<sup>nd</sup>, 2016. EM4.12.05
56. Samuel E. Root\*, Gaurav Arya, **Darren J. Lipomi** “Modeling the Mechanical Behavior of Organic Semiconductors using Molecular Dynamics Simulations”, Fall Meeting of the Materials Research Society, Boston, Massachusetts, December 2-5, 2016, oral presentation
55. **Darren J. Lipomi**\* “Metallic Nanoislands on Graphene for Cellular Electrophysiology and Wireless, Wearable Sensors” MRS Fall Meeting. November 29<sup>th</sup>, 2016. BM4.2.02

54. **Darren J. Lipomi\*** “Mechanical Properties of Low-Bandgap Organic Semiconductors” Polymer Society of Korea 40<sup>th</sup> Anniversary – IUPAC Conference. October 6<sup>th</sup>, 2016.
53. Samuel E. Root\*, Gaurav Arya, **Darren J. Lipomi** “Modeling the Mechanical Behavior of Semiconducting Polymers and Composites”, Polymer Society of Korea, Jeju, Korea, October 4-7, 2016, oral presentation, paper OR8-87
52. Brandon C. Marin\*, Aliaksander V. Zaretski, **Darren J. Lipomi**. "Metal Nanoisland Interfaces for Multimodal Sensing" Materials Research Society, IUMRS-ICEM 2016. Singapore. July 6<sup>th</sup>, 2016. Abstract ID ICEM-A-0769 (E)
51. Suchol Savagatrup\*, Adam D. Printz, Timothy F. O'Connor, **Darren J. Lipomi** "Mechanical properties of high-performance conjugated polymers for robust and intrinsically stretchable solar cells" International Union of Materials Research Societies-International Conference on Electronic Materials, Singapore, July 6<sup>th</sup>, 2016, poster, paper ICEM16-A-0740.
50. **Darren J. Lipomi\*** “Mechanical Properties of Low-Bandgap Organic Semiconductors” IUMRS-ICEM 2016. Singapore. July 6<sup>th</sup>, 2016.
49. Timothy F. O'Connor\*, Aliaksandr V. Zaretski, Suchol Savagatrup, Adam D. Printz, Cameron D. Wilkes, Mare Ivana Diaz, Eric J. Sawyer, **Darren J. Lipomi** “Wearable Organic Solar Cells: Materials Selection Criteria”. International Conference on Electronic Materials, Singapore, July 6<sup>th</sup>, 2016.
48. **Darren J. Lipomi\*** “Mechanical Properties of Organic Semiconductors for Mechanically Stable and Stretchable Devices” Materials Research Society Spring Meeting, Phoenix, AZ, April 1<sup>st</sup>, 2016, abstract MD5.10.05.
47. **Darren J. Lipomi\*** “Stretchable Organic Semiconductors for Wireless Human Gesture Decoding and Wearable Power” Materials Research Society Spring Meeting, Phoenix, AZ, March 30<sup>th</sup>, 2016, abstract SM3.2.05.
46. **Darren J. Lipomi\*** “Molecularly Stretchable Electronics for Energy & Healthcare” ACS PMSE / Chinese Chemical Society Polymer Division Symposium, San Diego, CA, March 18<sup>th</sup>, 2016.
45. Adam D. Printz\*, Suchol Savagatrup, Daniel Rodriguez, Esther Chan, **Darren J. Lipomi** “Competition between mechanical compliance and charge transport in organic semiconductors for flexible and stretchable electronics” Materials Research Society Fall Meeting, Boston, MA, December 2<sup>nd</sup>, 2015, abstract B5.02.
44. **Darren J. Lipomi\*** “Organic Strain Sensors for Human Motion Detection” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2015, abstract CC6.01 (invited talk)
43. Suchol Savagatrup\*, **Darren J. Lipomi** “Rapid Optimization and Directed Evolution of Organic Solar Cells by Iterative Mapping of One- and Two-Dimensional Gradients” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2015, Poster, paper BB6.09.
42. **Darren J. Lipomi\*** “Mechanical Properties of Organic Semiconductors for Epidermal Solar Cells” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2015, abstract MM3.05 (invited talk)
41. **Darren J. Lipomi** “Mechanical Stability of Roll-to-Roll Processed Organic Solar Cells and Graphene Barrier Films” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2015, abstract BB4.10 (invited talk)
40. **Darren J. Lipomi\*** “Mechanical Properties of Organic Solar Cells for Mechanically Stable and Intrinsically Stretchable Solar Cells” Quimicuba 2015, Havana, Cuba, October 16<sup>th</sup>, 2015.
39. **Darren J. Lipomi\*** “Mechanical Stability of Organic Solar Cells: Molecular and Microstructural Determinants” SPIE Organic Photonics + Electronics, San Diego, CA, August 13<sup>th</sup>, 2015, abstract 9567.37.
38. Aliaksandr V. Zaretski, Brandon C. Marin, Herad Moetazedi, Tyler J. Dill, Liban Jibril, Casey Kong, Andrea R. Tao, **Darren J. Lipomi\*** “Metal-assisted exfoliation (MAE): green process for transferring graphene to flexible substrates and templating of sub-nanometer plasmonic gaps” SPIE Nanoscience + Engineering, San Diego, CA, August 11<sup>th</sup>, 2015, abstract 9552-33.

37. Samuel Root\*, **Darren J. Lipomi**, Gaurav Arya “Mechanical Properties of Organic Electronic Materials: A Coarse-Grained Molecular Dynamics Study”, United States National Congress on Computational Mechanics, San Diego, CA, July 26-30, 2015, oral presentation, paper USNCCM13-804.
36. Samuel Root\*, **Darren J. Lipomi**, Gaurav Arya “Mechanical Properties of Organic Electronic Materials: A Coarse-Grained Molecular Dynamics Study”, United States National Congress on Computational Mechanics, San Diego, CA, July 26-30, 2015, poster, paper USNCCM13-P22.
35. **Darren J. Lipomi**\* “Mechanical Properties of Organic Semiconductors for Stable and Intrinsically Deformable Solar Cells” Next-Generation Organic Photovoltaics II, Groningen, Netherlands, June 29<sup>th</sup>, 2015.
34. **Darren J. Lipomi**, Timothy F. O’Connor\*, Aliaksandr V. Zaretski, Cameron D. Wilkes, Suchol Savagatrup, Adam Printz, Mare I. Diaz "Epidermal Organic Solar Cells" Next-Generation Organic Photovoltaics II, Groningen, Netherlands, June 29<sup>th</sup>, 2015, poster, paper 30.
33. Suchol Savagatrup\*, Adam D. Printz, Aliaksandr V. Zaretski, Timothy F. O’Connor, **Darren J. Lipomi** “Mechanical Properties of High-Performance Conjugated Polymers for Robust and Intrinsically Stretchable Solar Cells” Next-Generation Organic Photovoltaics II, Groningen, Netherlands, June 29<sup>th</sup>, 2015, Poster, paper 37.
32. Samuel Root\*, **Darren J. Lipomi** “Mechanical Properties of P3HT/PCBM Bulk Heterojunctions: A Coarse-Grained Molecular Dynamics Study” Next-Generation Organic Photovoltaics II, Groningen, Netherlands, June 28- July 1, 2015, poster, paper 31.
31. **Darren J. Lipomi**\* “Molecularly Stretchable Electronics for Mechanically Robust and Wearable Semiconductor Devices” SPIE Defense + Security, Baltimore, MD, April 20<sup>th</sup>, 2015, abstract 9467-4. (invited talk)
30. Adam D. Printz\*, Suchol Savagatrup, Daniel Rodriguez, Eric J. Sawyer, **Darren J. Lipomi** “Influence of Molecular Mixing and Microstructure on the Mechanical Properties of Organic Electronics” Materials Research Society Spring Meeting, San Francisco, CA, April 9<sup>th</sup>, 2015, abstract D15.15.
29. Suchol Savagatrup\*, Adam D. Printz, Aliaksandr V. Zaretski, Timothy F. O’Connor, **Darren J. Lipomi** “Mechanical Properties of High-Performance Conjugated Polymers for Robust and Intrinsically Stretchable Solar Cells” Materials Research Society Spring Meeting, San Francisco, CA, April 8<sup>th</sup>, 2015, Poster, paper D10.32.
28. Adam D. Printz\*, Andrew S.-C. Chiang, Suchol Savagatrup, Daniel Rodriguez, **Darren J. Lipomi** “Metrology of Organic Electronics using Elastomeric Substrates: Beyond the Tensile Modulus” Materials Research Society Spring Meeting, San Francisco, CA, April 7<sup>th</sup>, 2015, abstract LL3.03.
27. **Darren J. Lipomi**\* “Intrinsically Stretchable Organic Semiconductors for Wearable Electronics” Materials Research Society Spring Meeting, San Francisco, CA, April 7<sup>th</sup>, 2015, abstract LL1.07/III.07.
26. **Darren J. Lipomi** “Molecularly Stretchable Signal Transducers for Mechanical and Optical Sensing” Trillion Sensors Summit, Tokyo, Japan, December 9<sup>th</sup>, 2014.
25. Aliaksandr V. Zaretski\*, **Darren J. Lipomi**, “Metal-Assisted Exfoliation (MAE): Green, Roll-to-Roll Compatible Method for Transferring Graphene to Flexible Substrates” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2014, Paper ZZ6.06
24. **Darren J. Lipomi**, Aliaksandr V. Zaretski\*, Brandon Marin, Liban Jibril, Andrea R. Tao, “Fabrication of Sub-Nanometer Gaps by Nanoskiving Using the Edges of Graphene Nanoribbons as Sacrificial Spacers” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2014, Paper II6.06
23. Aliaksandr V. Zaretski\*, **Darren J. Lipomi**, “Large-Area Graphene Transfer from Indefinitely Reusable Copper Substrate” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2014, Paper K5.11<sup>[SEP]</sup>
22. **Darren J. Lipomi**, Suchol Savagatrup\*, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski “Mechanical Stability of Organic Solar Cells: Molecular and Microstructural Determinants” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2014, Poster, paper U13.07.

21. **Darren J. Lipomi**,\* Aliaksandr V. Zaretski, Adam D. Printz, and Daniel J. Burke, “Mechanical Properties of Organic Semiconductors for Biological Integration” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2014, paper FF10.05.
20. **Darren J. Lipomi**, Suchol Savagatrup\*, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski “Semiconducting Elastomers” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2014, Poster, paper B.4.07.
19. **Darren J. Lipomi**,\* Suchol Savagatrup, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski “Mechanical Properties of Organic Semiconductors for Biological Integration” Materials Research Society Fall Meeting, Boston, MA, December 1<sup>st</sup>, 2014, paper A2.06.
18. **Darren J. Lipomi**\* “Toward intrinsically stretchable organic semiconductors: mechanical properties of high-performance conjugated polymers” SPIE Photonics Meeting, San Diego, CA, August 19<sup>th</sup>, 2014.
17. **Darren J. Lipomi**,\* “Mechanical properties of solid films of optoelectronic nanowires and nanocrystals for solar energy conversion” ISACS Challenges in Nanoscience 2014, San Diego, CA, August 17<sup>th</sup>, 2014.
16. Adam D. Printz\*, Suchol Savagatrup, Daniel Rodriguez, **Darren J. Lipomi** “Best of Both Worlds: Co-Optimization of Mechanical Compliance and Photovoltaic Performance in Conjugated Polymers” Materials Research Society Spring Meeting, San Francisco, CA, April 24<sup>th</sup>, 2014, abstract R9.09.
15. Suchol Savagatrup\*, Adam D. Printz, **Darren J. Lipomi** “Rapid Optimization and Directed Evolution of Organic Solar Cells by Iterative Mapping of One- and Two-Dimensional Gradients” Materials Research Society Spring Meeting, San Francisco, CA, April 24<sup>th</sup>, 2014, Poster, paper C12.17.
14. **Darren J. Lipomi**,\* Suchol Savagatrup, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski, Bijan A. Shiravi “Toward Intrinsically Stretchable Organic Semiconductors: Mechanical Properties of High-Performance Conjugated Polymers” Materials Research Society Spring Meeting, San Francisco, CA, April 23<sup>rd</sup>, 2014, paper R5.03.
13. **Darren J. Lipomi**, Timothy F. O’Connor\*, Aliaksandr V. Zaretski, Bijan A. Shiravi, Suchol Savagatrup, Adam D. Printz, Mare I. Diaz "Stretching and Conformal Bonding of Organic Solar Cells to Hemispherical Surfaces" Materials Research Society Spring Meeting, San Francisco, CA, April 23<sup>rd</sup>, 2014, poster, paper R6.12.
12. **Darren J. Lipomi**,\* Suchol Savagatrup, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski, Bijan A. Shiravi “Mechanical Properties of Organic Semiconductors for Stretchable Electronics” American Chemical Society National Meeting, Dallas, TX, Paper no. 10435, March 19<sup>th</sup>, 2014.
11. Suchol Savagatrup\*, Aditya S. Makaram, Daniel J. Burke, **Darren J. Lipomi** “Elasticity and Ductility of Conjugated Polymers and Polymer-Fullerene Composites as a Function of Molecular Structure” American Chemical Society National Meeting & Exposition, Dallas, TX, March 18<sup>th</sup>, 2014, Poster, paper Poly 397.
10. **Darren J. Lipomi**,\* Suchol Savagatrup, Adam D. Printz, Timothy F. O’Connor, Aliaksandr V. Zaretski, Bijan A. Shiravi “Mechanical Properties of Organic Semiconductors for Stretchable Electronics” Functional Polymeric Materials, Cancun, Mexico, Feb. 12<sup>th</sup>, 2014.
9. **Darren J. Lipomi**,\* Suchol Savagatrup, Timothy F. O’Connor, Aliaksandr Zaretski, Adam D. Printz, and Daniel J. Burke “Mechanical Properties of Organic Semiconductors for Large-Area, Ultra-Compliant Applications” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2013, paper M4.07.
8. **Darren J. Lipomi**,\* Michael Vosgeuritchian, Benjamin C-K. Tee, Halbert Chong, Jennifer A. Lee, and Zhenan Bao "Electronic Properties of Organic Conductors and Semiconductors on Elastic Substrates: Toward Intrinsically Stretchable Solar Cells" Materials Research Society Spring Meeting, San Francisco, CA, April 12<sup>th</sup>, 2012.
7. **Darren J. Lipomi**\* and Zhenan Bao “Toward Mechanically Robust and Intrinsically Stretchable Organic Solar Cells” Materials Research Society National Meeting, Boston, MA, Symposium A: Compliant Energy Sources, Nov. 27<sup>th</sup>, 2012.
6. **Darren J. Lipomi**,\* Michael Vosgueritchian, Benjamin C-K. Tee, and Zhenan Bao “Stretchable Organic Solar Cells” Materials Research Society Spring Meeting, San Francisco, CA, April 26<sup>th</sup>, 2011.

5. **Darren J. Lipomi\*** and George M. Whitesides “Use of Thin Sectioning (Nanoskiving) to Fabricate Nanostructures for Plasmonics” Materials Research Society Spring Meeting, San Francisco, CA, April 28<sup>th</sup>, 2011.
4. **Darren J. Lipomi,\*** Benjamin J. Wiley, Philseok Kim, Sung H. Kang, Mikhail A. Kats, Joanna Aizenberg, Federico Capasso, and George M. Whitesides “Fabrication of One-, Two-, and Three-Dimensional Structures by Nanoskiving” Materials Research Society Fall Meeting, Boston, MA, December 3<sup>rd</sup>, 2009.
3. **Darren J. Lipomi,\*** Ryan C. Chiechi, Michael D. Dickey, William F. Reus, and George M. Whitesides, “Conjugated Polymer Structures Fabricated Using Nanoskiving: Nanowires and Heterojunctions for Photovoltaics” Materials Research Society Spring Meeting, San Francisco, CA, April 17<sup>th</sup>, 2009
2. **Darren J. Lipomi,\*** Ryan C. Chiechi, William F. Reus, and George M. Whitesides, “Ordered Thin-Film Heterojunction of Conjugated Polymers for Photovoltaics by Nanoskiving a Jelly Roll” Division of Organic Chemistry (ORGN) #576, American Chemical Society National Meeting, Philadelphia, PA, August 20<sup>th</sup>, 2008.
1. **Darren J. Lipomi,\*** Neil F. Langille, and James S. Panek, “Studies Directed Toward the Total Synthesis of Basiliskamides A and B” Division of Chemical Education (CHED) #954, American Chemical Society National Meeting, Anaheim, CA, March 29<sup>th</sup>, 2004.

### Service to Home Institution

- Chair, Masters Growth Committee, Department of NanoEngineering, 2019 – present
- Committee on Extended Studies and Public Service, Academic Senate, 2018 – present
- Jacob’s School Dean’s Executive Council, Jacobs School of Engineering, 2018 – present
- Member, Website and Publicity Committee, Department of NanoEngineering, 2018 – 2019
- Multiple ad hoc promotion committees, 2016 – present
- Chair, Graduate Affairs Committee, 2016 – 2019
- ABET Accreditation Committee, Nanoengineering Program, 2015 – present
- Faculty search committee, Department of NanoEngineering, 2015
- Departmental Representative of the Academic Senate, UCSD, September 2013 – August 2014
- Diversity Officer, Department of NanoEngineering, UCSD, September 2012 – 2017
- Executive Council for the Center for Inclusion, Diversity, Excellence, and Advancement, Jacobs School of Engineering, UCSD, September 2012 – 2017
  - *As Diversity Officer and Faculty Advisor to the IDEA (Diversity) Center, I participated in over eighty separate events whose goals were to promote educational and professional advancement of students in the Jacobs School of Engineering, especially students from underrepresented minority groups. These activities include speaking engagements, lab tours, strategic planning subcommittees, and other events. While the IDEA Center serves all students in the Jacobs School of Engineering, its founding principle is the recruitment, retention, and flourishing of underrepresented minority students and women in engineering.*
- Jacobs Scholars Selection Committee, Jacobs School of Engineering, UCSD, Winter 2013
- Mentor, IDEA Scholar Program, January 2013 – present
- Mentor, McNair Scholars Program, April 2013 – 2015, 2018 – present
- Search Committee for IDEA Center Director, 10/12
- Graduate Affairs Committee, Department of NanoEngineering, UCSD, September 2012 – present
- Seminar Committee, Department of NanoEngineering, UCSD, 2012 – 2013
- Area Safety Coordinator, Bao Research Group, Department of Chemical Engineering, Stanford University, January 2012 – June 2012
- Chair, Graduate Student & Postdoc Council, Department of Department of Chemistry & Chemical Biology, Harvard University, July 2009 – January 2010

### External Service to Scientific Community

#### Grant reviewer:

Air Force Office of Scientific Research, 1-2 proposals annually

NIH Study Section, Instrumentation and Systems Development (ISD), 10/19, 6/20, 6/22, 11/22 (special emphasis panel)  
Samsung grants made to Korean investigators panel, 3/23  
NSF GRFP Panelist, 2018, 2020  
Office of Navy Research, 8/29/18  
National Science Foundation, CBET panel, 2/16  
Petroleum Research Fund, American Chemical Society, 12/18/15  
Research Council of Canada, 12/10/14  
Technology Foundation STW (Netherlands), 2/14/14  
Austrian Academy of Sciences Grant Reviewer, 7/30/13  
Research Grants Council of Hong Kong, 10/2/13  
AFOSR Young Investigator Program Reviewer, 10/23/13  
Air Force Office of Scientific Research, 10/1/13  
National Science Foundation, CMMI panel, 2/13

### **Conference organization:**

Lead Organizer, MRS Fall Meeting Symposium: Organic Haptics, 12/20, 12/22  
Lead Organizer, UCSD-nCOMS Symposium, San Diego, CA, 1/29/18  
Lead Organizer, MRS-Kavli Symposium on Stretchable Bioelectronics, Phoenix, AZ, 4/22/17  
Lead Organizer, Materials Research Society Fall Meeting Symposium B: Stretchable and Active Polymer and Composites for Electronics and Medicine, Boston, MA, 11/29/15–12/4/15  
Co-Chair, International Conference on Electronic Materials (IUMRS-ICEM 2016), Session: Stretchable and Wearable Electronics, Singapore, 7/4/16–7/8/16

### **External dissertation committees:**

Exam committee member for Shiming Zhang, Polytechnique Montréal, Canada, 11/7/17  
Exam committee member for Parisa Porhoussein, University of Groningen, Netherlands, 6/20/14

### **Journal editing and other activities:**

Member of the Search Committee for Editor in Chief for prominent ACS journal, 2020  
Editorial Advisory Board for *Chemistry of Materials*, *ACS Omega*, *Materials Horizons* and *ACS Applied Nano Materials*  
Lead Editor, *MRS Advances* issue associated with Materials Research Society Fall Meeting Symposium B: Stretchable and Active Polymer and Composites for Electronics and Medicine, Boston, MA, 11/29/15–12/4/15  
Co-Guest Editor (with Zhenan Bao), *MRS Bulletin* Special Issue “Stretchable and Ultra-Flexible Organic Electronics” 2/17.

### **Reviewer for Peer-Reviewed Journals**

~25 reviews per year in most materials-relevant journals in the ACS, RSC, and Wiley portfolios, including

*Accounts of Chemical Research*  
*ACS Applied Materials and Interfaces*  
*ACS Applied Nano Materials*  
*ACS Nano*  
*ACS Omega*  
*ACS Sustainable Chemistry & Engineering*  
*Advanced Materials*  
*Advanced Energy Materials*  
*Advanced Healthcare Materials*  
*Advanced Functional Materials*  
*Advanced Materials Interfaces*  
*Advanced Optical Materials*

*Angewandte Chemie*  
*Applied Physics A*  
*Chemical Communications*  
*Chemical Reviews*  
*Chemistry of Materials*  
*Composites Part B*  
*Energy & Environmental Science*  
*Npg Flexible Electronics*  
*Joule*  
*Journal of the American Chemical Society*  
*Journal of Applied Physics*  
*Journal of Applied Polymer Science*  
*Journal of Materials Chemistry A*  
*Journal of Materials Chemistry C*  
*Journal of Materials Research*  
*Journal of Physical Chemistry*  
*Journal of Polymer Science – Polymer Chemistry*  
*Journal of Polymer Science – Polymer Physics*  
*Journal of Visualized Experiments*  
*Langmuir*  
*Macromolecular Rapid Communications*  
*Macromolecules*  
*Materials Horizons*  
*Materials Today*  
*Nano Letters*  
*Nano Today*  
*Nanoscale*  
*Nanoscale Horizons*  
*Nature*  
*Nature Biotechnology*  
*Nature Communications*  
*Nature Materials*  
*Nature Nanotechnology*  
*Nature Photonics*  
*NPG Asia Materials*  
*NPG Scientific Reports*  
*Optical Fiber Technology*  
*Organic Electronics*  
*Physical Chemistry Chemical Physics*  
*Proceedings of the National Academy of Sciences*  
*RSC Advances*  
*Science*  
*Science Advances*  
*Synthetic Metals*

## **Students Mentored**

### **Postdocs:**

Charles B. Dhong, chemical engineering, 1/17 – 6/19 (now: U Delaware)

Laure V. Kayser, chemistry, 9/16 – 6/19 (now: U Delaware)

Daniel J. Burke, chemistry, 8/12 – 9/13 (now: Tesla Motors)

### **Doctoral Students:**

Guillermo Esparza, materials science, 9/19 – 6/23 (now: postdoc at UCSD)

Alexander Chen, chemical engineering, 9/18 – 8/23

Beril Polat, chemical engineering, 10/18 – 6/22 (now: Cue Health)

Rory Runser, chemical engineering, 9/17 – 6/22 (now: GAF Energy)



Andrew T. Kleinschmidt, chemical engineering, 9/16 – 6/22 (now: Schrodinger)  
Mickey Finn III, nanoengineering, 6/16 – 6/21 (now: Fabric8Labs)  
Cody W. Carpenter, nanoengineering, 5/16 – 6/19 (now: Eli Lilly)  
Brandon C. Marin, chemical engineering, 11/15 – 3/17 (now: Intel)  
Julián Ramírez, chemical engineering, 7/15 – 6/20 (now: Omniome)  
Daniel Rodriguez, nanoengineering, 7/15 – 6/18 (now: AMSL)  
Samuel E. Root, chemical engineering, 8/14 – 2/18 (postdoc at Harvard, now postdoc at Stanford)  
Suchol Savagatrup, chemical engineering, 2/13 – 6/16 (now: Asst. Prof., Dept of Chem. & Environ. Eng. U Ariz)  
Aliaksandr V. Zaretski, nanoengineering, 1/13 – 6/16 (now: Founder, CTO, GrollTex, Inc.)  
Timothy F. O'Connor, nanoengineering, 1/13 – 8/17 (ASML, then Founder Hyperspace Lighting Company)  
Adam D. Printz, nanoengineering, 9/12 – 12/16 (now: Asst. Prof., Dept. of Chem. & Environ. Eng. U Ariz)

#### **Masters Students (1-2 year appointments):**

Mohammad Alkhadra, 6/17 – 6/18  
Colin Keefe, 6/17 (co-Research Advisor, with Truong Nguyen)  
Vinod Rajendran, 9/12 – 6/13 (Academic Advisor)  
Casey Kong, 7/13 – 6/15 (formerly undergraduate) (Research Advisor)  
Douglas Grosser, 9/13 (Academic Advisor)  
Jude Prashanth, 9/13 (Academic Advisor)  
Eric J. Sawyer, 4/14 (Research Advisor)  
Raziel I. Acosta, 5/14 (Research Advisor)  
Casey Kong, 9/14 (Research Advisor)  
Joy Lopez Cervera, 9/15 (Academic Advisor)  
Siyu Zhu, 9/15 (Academic Advisor)  
Kirtana M. Rajan, nanoengineering, 7/14 – 3/16 (Research Advisor)

#### **Undergraduate Students:**

##### At UCSD

Full listing since 6/22 on lipomigroup.org  
Patrick Carroll, 6/18 – 6/19  
Colin Feeney, 6/18 – 6/20  
Tarek Rafeedi, 3/18 – 6/20 (now PhD student)  
Sami Abuhamdieh, 1/18 – 6/20  
Anne Cardenas, 10/17 – 6/20  
Kartik Choudhary, 9/17 – 6/22  
Marigold Malinao, 9/17 – 6/22  
Eden Aklile, 4/16 – 6/17 (now: PhD student at Northwestern)  
Lehna Ngwa, 12/17 – 8/18  
Derick Ober, 11/17 – 6.20  
Madeleine Russell, 4/17 – 6/19  
Linxi Xu, 6/17 – 8/17 (REU student from Wofford University)  
Alexander Stein, 4/17 – 6/18  
Kristan Hilby, 4/17 – 6/19  
Ryan Arroyo, 4/17 – 6/19  
Andrew Shin, 4/17 – 6/17, 6/18 – present  
Mahmoud Issa, 4/17 – 6/18 (now: MS student at San Jose State)  
Salik Khan, 4/17 – 6/19  
Melissa Tan, 1/17 – 6/17 (BS student at Nanyang Technological University, now: PhD student at Stanford)  
Jasmine Rye, 9/16 – 6/17  
Kyle Skelil, 9/16 – present  
Emily Abdo, 6/16 – 8/16 (undergraduate volunteer from Princeton University)  
Steven Wood, 6/16 – 8/16 (REU student from Temple University) (now: PhD student at Caltech)  
Mohammad Alkhadra, 4/16 – 6/17 (PhD, MIT; then, Founder Lithios, Inc.)  
Rachel Miller, 9/15 – 8/18 (PhD student at Cornell, then Hewlett Packard)  
Rachel Oweyung, 6/15 – 6/16 (now: PhD student at Tufts University)  
Nathaniel de los Santos, 6/15 – present

Mickey Finn, 4/15 – 6/16 (now: PhD student in Lipomi group)  
Julián Ramírez, 4/15 – 7/15  
Selina Valladolid, 4/15 – 6/16  
Shelby Triplitt, 1/15 – 6/15  
Cameron Wilkes, 9/14 – 6/15  
Mare Ivana Diaz, 9/14 – 6/16 (formerly high school)  
Liban Jibril, 4/14 – 6/17 (now: PhD student at Northwestern)  
Andrew Chiang, 1/14 – 6/17 (now: PhD student at Michigan)  
Kevin Crowley, 12/13 – 12/14  
Timothy Wang, 6/13 – 9/13 (Academic Advisor for Academic Internship Program)  
Sandro Renteria-Garcia, 6/13 – 8/13  
Eduardo Valle, 4/13 – 6/15 (now: PhD student at Stanford)  
Amy Mao, chemistry, 1/13 – 6/13  
Trevor Purdy, 1/13 – 12/13 (now: PhD student at Scripps Institution of Oceanography)  
Bijan Shiravi, 1/13 – 5/14 (now: Tesla)  
Herad Moetazedi, 1/13 – 6/14  
Rene Martinez, 1/13 – 12/13  
Esther Chan, 10/12 – 6/15  
Aditya Makaram, 10/12 – 1/14  
Jeremy Morales Madrigal, 10/12 – 3/13

At Stanford University

Jennifer Lee, undergraduate, 1/11 – 8/11  
Halbert Chong, undergraduate, 1/12 – 6/12

At Harvard University

Alex Capecelatro, undergraduate, 5/08 – 8/08

**High School Students:**

Alejandra Bautista-Gutierrez, 7/14 – 12/14  
Mare Ivana Diaz, 7/13 – 6/14

**Other:**

Von Liebig Center students I-Corps program

Cody Carpenter, 12/13 – 6/14  
Chase Aaronson, 12/13 – 6/14  
William McCall, 12/13 – 6/14