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Education

- PhD, Applied Physics, Biology minor, California Institute of Technology June 2007
- MS, Applied Physics, California Institute of Technology June 2003
- AB, Physics, additional coursework in Chemistry, University of Chicago June 2001

Professional Experience

Vice Dean of New Initiatives, Viterbi School of Engineering, USC	2021-present
Ellison Institute, founding member	2018-present
Director, O'Brien Nanofabrication Laboratory	2017-present
Director, Keck Photonics Cleanroom (closed)	2017-2021
Director, Powell Teaching Cleanroom	2017-present
 Professor, University of Southern California	 2017-present
Ray Irani Chair of Chemical Engineering and Materials Science	
Chemical Engineering and Materials Science (primary)	
Chemistry – Physical/Theoretical Section, Biomedical Engineering, Electrical Engineering-Electrophysics (courtesy), Mechanical Engineering (courtesy)	
 Associate Professor, University of Southern California	
Fluor Early Career Chair in Engineering, renewed	2014-2017
Chemical Engineering and Materials Science (primary); Chemistry, Biomedical Engineering, Electrical Engineering-Electrophysics (courtesy)	2014-2017
 Faculty Fellow, Northrop Grumman	 2015-2019
Aerospace Systems, Technical Level 6	
 Assistant Professor, University of Southern California	
Fluor Early Career Chair in Engineering	2009-2014
Chemical Engineering and Materials Science (primary); Chemistry, Biomedical Engineering, Electrical Engineering-Electrophysics (courtesy)	2008-2014
 Clare Boothe Luce Post-doctoral Fellow, California Institute of Technology	 2006-2008
Prof. Richard Flagan (Division of Chemistry and Chemical Engineering), Prof. Scott Fraser (Division of Biology)	
 Huntington Memorial Hospital, Pasadena, CA	 Summer 2007
Preceptorship Program, Dr. William Caton, III	

Awards and Honors

National/International Awards

- SPIE Fellow 2018
- OSA Fellow 2018
- Sigma Xi (full member) 2017
- NAI (member) 2017
- IEEE Photonics Society Women in Photonics Travel Award 2017
- Science and Technology in Society (STS) Forum, Future Leader (Kyoto) 2015
- World Economic Forum, Young Global Leader 2015
- Science and Technology in Society (STS) Forum, Young Engineering Leader (Kyoto) 2015
- NAE Frontiers of Engineering Education Symposium 2014
- World Economic Forum, Young Scientist (one of ten scientists from US) 2014
- Popular Science Brilliant 10 2013
- NAE-Grainger Award, joint with KIYATEC 2013
- NAE Frontiers of Engineering Symposium 2012
- Presidential Early Career Award for Scientists and Engineers (PECASE) 2010
- National Institutes of Health Director's New Innovator Award 2010
- Congressionally Directed Medical Research Program Young Investigator Award 2010
- Technology Review TR35, Top 35 Innovators under 35 2009
- Office of Naval Research Young Investigator Award 2009
- Young Investigator Award, SPIE Photonics West/BiIOS 2008
- SPIE Optomechatronics Best Student Paper Award 2006

Regional Awards

- Orange County Engineering Council Distinguished Engineering Merit Award 2016
- St. Mary's Episcopal School, Alumna of the Year 2016

Internal USC Awards

- Appointed First Holder of the Ray Irani Chair of Chemical Engineering 2017
- Hanna Reisler Mentorship Award 2016
- USC Viterbi Junior Research Award 2011
- USC Mellon Mentoring Award 2010
- Appointed First Holder of the Fluor Early Career Chair of Engineering 2009

Other

- Graduate Dean's Award for Community Service, Caltech 2007
- Clare Boothe Luce Postdoctoral Fellowship 2006-2008
- Sigma Xi award for Excellence in Research, University of Chicago 2001

Publications

Peer-Reviewed Journal Articles

In review or revision

1. Yingmu Zhang*, Yasaman Moradi*, Jinghan He*, Patrick Saris*, Hyun Uk Chae, Rodrigo Elizalde-Segovia, Sri Narayan, Rehan Kapadia, **Andrea M. Armani**, Multifunctional imaging probe molecule for modulating and reporting bioelectric fields, (2021). *Under review*, available on arxiv.

Published * indicates member of research group

1. Matthew Skiles, Euijin Yang, Orad Reshef, Diego Robalino Muñoz, Diana Cintron, Mary Laura Lind, Kevin Marvel, Alexander Rush, **Andrea Armani**, Kasey Faust, **Manish Kumar**, Beyond the carbon footprint: Virtual conferences increase diversity, equity, and inclusion, *Nature Sustainability* (2021). *Accepted*
2. J. He*, A. Kovach*, Y. Wang, W. Wang, W. Wu, **Andrea M. Armani**, Stretchable optical diffraction grating from poly(acrylic acid)/polyethylene oxide stereocomplex, *Optics Letters*, (2021). *Accepted*
3. Alexis Scholtz*, Anuradha Ramoji, Anja Silge, Jakob Jansson, Ian de Moura, Juergan Popp, Jakub Sram, **Andrea M. Armani**, COVID-19 Diagnostics: Past, Present, and Future, *ACS Photonics* (2021). *In press*
4. **A. M. Armani**, C. Jackson, T. Searles, J. Wade, The need to recognize and rebalance the academic workload, *Nature Review Materials* (2021). *In press*
5. **A. M. Armani**, J. Lee, Evaluating the impact of ideation and actualization of multidisciplinary research, *Communications Physics*, (2021). *In press, available on arXiv*
6. H. Chen, J. Zhou, D. Li, D. Chen*, A. K. Vinod, H. Fu, X. Huang, T.-H. Yang, J. A. Montes, K. Fu, C. Yang, C.-Z. Ning, C. W. Wong, **A. M. Armani**, **Y. Zhao**, Supercontinuum generation in high order waveguide mode with near-visible pumping using aluminum nitride waveguides, *ACS Photonics* 8 (5), 1344-1352 (2021).
7. **A. M. Armani**, E. D. Diebold, Catalyzing pathways for translational research beyond COVID-19, *Communications Physics* 4 167 (2021).
8. M. Soler, A. Scholtz*, R. Zeto*, **A. M. Armani**, Engineering photonics solutions for COVID-19, *APL Photonics* 6, 090901 (2020).
9. R. C. She, D. Chen*, P. Pak, D. K. Armani, A. Schubert, **A. M. Armani**, Lightweight UV-C disinfection system, *Biomedical Optics Express* 11 (8), 4326-4332 (2020).
10. J. He*, A. Kovach*, P. Saris*, M. Veksler*, **A. M. Armani**, All-optical reversible control of integrated photonics by self-assembled azobenzene, *Optics Express* 28 (15), 22462-22377 (2020).
11. A. Kovach*, A. Gallegos*, J. He*, H. Choi*, **A. M. Armani**, Cascaded Stokes and anti-Stokes laser based on an optical resonator with a self-assembled organic monolayer, *Optics Letters* 45 (15), 4244-4247 (2020).
12. J. He*, H. Chen, J. Hu, J. Zhou, Y. Zhang*, A. Kovach*, C. Sideris, M. C. Harrison, Y. Zhou, **A. M. Armani**, Nonlinear nanophotonic devices in the ultraviolet to visible wavelength range, *Nanophotonics* 9 (12), 3781-3804 (2020).

13. **A. M. Armani**, D. Hunt, D. Hwang, M. McCarthy, A. Scholtz*, Low-tech solutions for the COVID-19 supply chain crisis, *Nature Reviews Materials*, 5, 403-406 (2020).
14. A. Kovach*, J. He*, P. Saris*, D. Chen*, **A. M. Armani**, Broadband resonant cavity tuning via covalently bonded azobenzene photoswitching, *AIP Advances*, 10 (4), 045117 (2020).
15. O. Reshef, I. Aharonovich, **A. Armani**, S. Gigan, R. Grange, M. A. Kats, R. Sapienza, How to organize an online conference, *Nature Reviews Materials*, 5, 253-256 (2020).
16. X. Shen*, H. Choi*, D. Chen*, W. Zhao, **A. M. Armani**, Integrated surface Raman laser from single molecule monolayer, *Nature Photonics* 14, 95-101 (2020).
17. A. Kovach*, D. Chen*, J. He*, H. Choi*, A. H. Dogan, M. Ghasemkhani, H. Taheri, **A. M. Armani**, Emerging material systems for integrated optical frequency combs, *Advances in Optics and Photonics* 12 (1), 135-222 (2020).
18. R. Zeto*, D. Cummins*, A. Gallegos*, M. Shao*, **A. M. Armani**, General strategy for doping rare earth metals into Au-ZnO core-shell nanospheres, *Journal of Materials Research* 34 (23), 3877-3886 (2019).
19. D. Chen*, A. Kovach*, S. Poust, V. Gambin, **A. M. Armani**, Normal dispersion silicon oxynitride microresonator Kerr Frequency combs, *Applied Physics Letters* 115 (5), (2019).
20. H. Choi*, D. Chen*, F. Du*, R. Zeto*, **A. M. Armani**, Low threshold anti-Stokes Raman laser on-chip, *Photonics Research* 7 (8), (2019).
21. A. W. Hudnut*, N. A. Trasolini, G. F. Hatch III, **A. M. Armani**, Biomechanical analysis of porcine cartilage elasticity, *Annals of Biomedical Engineering*, 47 1, 202-212 (2019).
22. S. Soltani*, V. M. Diep*, R. Zeto*, **A. M. Armani**, Stimulated Anti-Stokes Raman emission generated by gold nanorod coated optical resonators, *ACS Photonics* 5 9, 3550-3556 (2018).
23. S. McBirney*, D. Chen*, A. Scholtz*, H. Ameri, **A. M. Armani**, Rapid diagnostic for point-of-care malaria screening, *ACS Sensors* 3 7, 1264-1270 (2018).
24. H. Choi*, **A. M. Armani**, Raman-Kerr frequency combs in Zr-doped silica hybrid microresonators, *Optics Letters* 43 12, 2949-2952 (2018).
25. A. W. Hudnut*, L. Lash-Rosenberg*, A. Xin, A. Leal, C. Zurita-Lopez, Q. Wang, **A. M. Armani**, Role of extracellular matrix in the biomechanical behavior of pancreatic tissue, *ACS Biomaterials Science & Engineering* 4 5, 1916-1923 (2018).
26. X. Shen*, R. Castro Beltran*, V. Diep*, S. Soltani*, **A. M. Armani**, Low threshold parametric oscillation in organically modified microcavities, *Science Advances* 4 1, eaao04507 (2018).
27. R. Castro-Beltran*, V. Diep*, S. Soltani*, E. Gungor*, **A. M. Armani**, Plasmonically enhanced Kerr frequency combs, *ACS Photonics* 4 11, 2828-2834 (2017).
28. A. W. Hudnut*, B. Babaei, S. Liu*, B. K. Larson, G. M. Genin, S. M. Mumenthaler, **A. M. Armani**, Characterization of the mechanical properties of resected porcine organ tissue using optical fiber polarimetry, *Biomedical Optics Express* 8 10, 4663-4670 (2017).
29. J. De Anda, E. Y. Lee, C. K. Lee, R. R. Bennett, X. Ji, S. Soltani*, M. C. Harrison*, A. E. Baker, Y. Luo, T. Chou, G. A. O'Toole, **A. M. Armani**, R. Golestanian, G. C. L. Wong,

- High-speed “4D” computational microscopy of bacterial surface motility, ACS Nano **11** 9, 9340-9351 (2017).
30. D. Chen*, A. Kovach*, X. Shen*, S. Poust, **A. M. Armani**, On-chip ultra-high Q silicon oxynitride optical resonators, ACS Photonics **4** 9, 2376-2381 (2017).
 31. A. W. Hudnut*, **A. M. Armani**, High resolution analysis of the mechanical behavior of tissue, Applied Physics Letters **110** 24, 243701 (2017).
 32. S. Soltani*, A. W. Hudnut*, **A. M. Armani**, On-chip asymmetric microcavity optomechanics, Optics Express **24** 26, 29613-29623 (2016). **Top 5 downloads of the day*
 33. V. Diep*, **A. M. Armani**, Flexible light-emitting nanocomposite based on ZnO nanotetrapods, Nano Letters **16** 12, 7389-7393 (2016).
 34. T. D. Rane*, **A. M. Armani**, Two-photon microscopy analysis of gold nanoparticle uptake in 3D cell spheroids, PLOS ONE **11** 12 e0167548 (2016).
 35. H. Choi*, **A. M. Armani**, High efficiency Raman lasers based on Zr-doped silica hybrid microcavities, ACS Photonics **3** 12, 2383-2388 (2016).
 36. M. Lee*, **A. M. Armani**, Flexible UV exposure sensor based on UV responsive polymer, ACS Sensors **1** 10, 1251-1255 (2016). **highlighted in Phys.org and various news outlets.*
 37. S. McBirney*, K. Trinh, A. Wong-Beringer, **A. M. Armani**, Wavelength-normalized spectroscopic analysis of *Staphylococcus aureus* and *Pseudomonas aeruginosa* growth rates, Biomedical Optics Express **7** 10, 4034-4042 (2016). **highlighted in Phys.org and various news outlets and Top 5 downloads of the day*
 38. E. K. Moen*, B. L. Ibey, H. T. Beier, **A. M. Armani**, Investigating membrane nanoporation induced by bipolar pulsed electric fields via second harmonic generation, Applied Physics Letters **109** 11, 113701 (2016).
 39. E. K. Moen*, B. Ibey, H. Beier, **A. M. Armani**, Quantifying Pulsed Electric Field-Induced Membrane Nanoporation in Single Cells, BBA Biomembranes **1858** 11, 2795-2803 (2016).
 40. E. Gungor*, **A. M. Armani**, Photocleavage of covalently immobilized amphiphilic block copolymer: From bi- to monolayer, Macromolecules **49** 16, 5773-5781 (2016).
 41. M. Lee*, E. Gungor*, **A. M. Armani**, Photocleavage of poly(methyl acrylate) with centrally located o-nitrobenzyl moiety: Influence of environment on kinetics, Macromolecules **48** 24, 8746-8751 (2015).
 42. X. Zhou, L. Zhang, **A. M. Armani**, J. Liu, X. Duan, D. Zhang, H. Zhang, **W. Pang**, An integrated photonic gas sensor enhanced by optimized Fano effects in coupled microring resonators with an athermal waveguide, Journal of Lightwave Technology **33** 22, 4521-4530 (2015).
- Role: Armani contributed technical expertise related to ensuring the parameters (materials, dimensions, sampling resolution) used in the model were experimentally realizable as well as writing the manuscript.*

43. M. Harrison*, **A. M. Armani**, Portable polarimetric fiber stress sensor system for visco-elastic and biomimetic material analysis, Applied Physics Letters **106** 20, 191105 (2015).
**highlighted in Phys.org and various news outlets.*
44. M. V. Chistiakova*, C. Shi*, **A. M. Armani**, Label-free, single molecule resonant cavity detection: a double-blind experimental study, Sensors **15** 3, 6324-6341 (2015).
45. V. Sun*, **A. M. Armani**, Real-time detection of lipid bilayer assembly and detergent-initiated solubilization, Applied Physics Letters **106** 7, 071103 (2015).
46. A. B. Socorro, S. Soltani*, I. Del Villar, J. M. Corres, **A. M. Armani**, Temperature sensor based on a hybrid ITO-silica resonant cavity, Optics Express **23** 3, 1930-1937 (2015).
47. R. Hawk*, **A. M. Armani**, Label-free detection of 5'hydroxymethylcytosine within CpG islands using optical sensors, Biosensors and Bioelectronics **65**, 198-203 (2015).
48. M. V. Chistiakova*, **A. M. Armani**, Photoelastic ultrasound detection using ultra-high-Q silica optical resonators, Optics Express **22** 23, 28169-28179 (2014).
49. M. V. Chistiakova*, **A. M. Armani**, Optical detection of CO and CO₂ temperature dependent desorption from carbon nanotube clusters, Nanotechnology **25** 39, 395201 (2014). **highlighted in Phys.org and various news outlets.*
50. M. I. Cheema, C. Shi*, **A. M. Armani**, A. G. Kirk, Optimizing the signal to noise ratio of microcavity sensors, IEEE Photonics Technology Letters **26** 20, 2023-2026 (2014).
Role: All experiments and related data analysis were performed in the Armani lab. Initial project conception occurred in the Armani lab while M. Cheema was a visiting PhD researcher.
51. S. Soltani*, **A. M. Armani**, Optothermal transport behavior in whispering gallery mode optical cavities, Applied Physics Letters **105** 5, 05111 (2014).
52. S. Mehrabani*, A. J. Maker*, **A. M. Armani**, Hybrid integrated label-free chemical and biological sensors, Sensors **14** 4, 5890-5928 (2014).
53. N. Deka*, A. J. Maker*, **A. M. Armani**, Titanium enhanced Raman microcavity laser, Optics Letters **39** 6, 1354-1357(2014).
54. H. K. Hunt, **A. M. Armani**, Bioconjugation Strategies for Label-free Optical Microcavity Sensors, IEEE Journal of Selected Topics in Quantum Electronics **20** 2, 6900213(2014).
55. M. Harrison*, **A. M. Armani**, Spatiotemporal fluorescent detection measurements using embedded optofluidic sensors, IEEE Journal of Selected Topics in Quantum Electronics **20** 2, 7000207 (2014).
56. X. Zhou, L. Zhang, **A. M. Armani**, D. Zhang, X. Duan, J. Liu, H. Zhang, W. Pang, On-chip biological and chemical detection with reversed Fano lineshape enabled by embedded microring resonators, IEEE Journal of Selected Topics in Quantum Electronics **20** 3, 5200110 (2014).
Role: Armani contributed technical expertise related to ensuring the parameters (materials, dimensions, sampling resolution) used in the model were experimentally realizable as well as writing the manuscript.
57. C. Shi*, S. Soltani*, **A. M. Armani**, Gold nanorod plasmonic upconversion microlaser, Nano Letters **13** 12, 5827-5831 (2013).

58. A. J. Maker*, **A. M. Armani**, nanoWatt threshold, alumina sensitized neodymium laser integrated on silicon, *Optics Express* **21** (22), 27238-27245 (2013).
59. R. Hawk*, M. V. Chistiakova*, **A. M. Armani**, Monitoring DNA hybridization using optical microcavities, *Optics Letters* **38** 22, 4690-4693 (2013). **republished in the Virtual Journal of Biomedical Optics*
60. S. Mehrabani*, **A. M. Armani**, Blue upconversion laser based on thulium doped silica microcavity, *Optics Letters* **38** 21, 4346–4349 (2013).
61. X. Zhang*, **A. M. Armani**, Silica microtoroid resonator sensor with monolithically integrated waveguides, *Optics Express* **21** 20, 23592-23603 (2013).
62. A. J. Maker*, **A. M. Armani**, Heterodyned toroidal microlaser sensor, *Applied Physics Letters* **103** 12, 123302 (2013). **republished in APL: Organic Electronics and Photonics*
63. M. I. Cheema, U. A. Khan, **A. M. Armani**, **A. G. Kirk**, Towards more accurate microcavity sensors: maximum likelihood estimation applied to a combination of quality factor and wavelength shifts, *Optics Express* **21** 19, 22817-22828 (2013).
Role: All theoretical calculations and initial manuscript writing were performed in the Armani lab while M. Cheema was a visiting PhD researcher.
64. X. Zhou, L. Zhang, **A. M. Armani**, R. G. Beausoleil, A. E. Willner, **W. Pang**, Power enhancement and phase regimes in embedded microring resonators in analogy with electromagnetically induced transparency, *Optics Express* **21** 17, 20179-20186 (2013).
**republished in the Virtual Journal of Biomedical Optics*
Role: Armani contributed technical expertise related to ensuring the parameters (materials, dimensions, sampling resolution) used in the model were experimentally realizable as well as writing the manuscript.
65. A. Harker*, S. Mehrabani*, **A. M. Armani**, Ultra-violet light detection using an optical microcavity, *Optics Letters* **38** 17, 3422-3425 (2013). **Top 5 downloads of the day and republished in the Virtual Journal of Biomedical Optics*
66. S. Mehrabani*, P. Kwong, M. Gupta, **A. M. Armani**, Hybrid microcavity humidity sensor, *Applied Physics Letters* **102** 24, 241101 (2013).
67. S. Soltani*, **A. M. Armani**, Optimal design of suspended silica on-chip splitter, *Optics Express* **21** 6, 7748-7757 (2013). **Top 5 downloads of the day*
68. C. R. Murthy*, **A. M. Armani**, Mass transport effects in suspended waveguide biosensors integrated in microfluidic channels, *Sensors* **12** 11, 14327-14343 (2012).
69. X. Zhang*, M. Harrison*, A. Harker*, **A. M. Armani**, Serpentine low loss trapezoidal silica waveguides on silicon, *Optics Express* **20** 20, 22298-22307 (2012).
70. M. Chistiakova*, **A. M. Armani**, Cascaded Raman microlaser in air and in buffer, *Optics Letters* **37** 20, 4068-4070 (2012). **republished in the Virtual Journal of Biomedical Optics*
71. A. J. Maker*, B. A. Rose*, **A. M. Armani**, Tailoring the behavior of optical microcavities with high refractive index sol-gel coatings, *Optics Letters* **37** 14, 2844-2846 (2012).
72. C. Shi*, S. Mehrabani*, **A. M. Armani**, Leveraging bimodal kinetics to improve detection specificity, *Optics Letters* **37** 10, 1643-1645 (2012). **republished in the Virtual Journal of Biomedical Optics*

73. A. J. Maker*, **A. M. Armani**, Fabrication of silica ultra high quality factor microresonators, *Journal of Visualized Experiment* **65**, e4164 (2012).
74. B. A. Rose*, A. J. Maker*, **A. M. Armani**, Characterization of thermo-optic coefficient and material loss of high refractive index silica sol-gel films in the visible and near-IR, *Optical Materials Express* **2** 5, 671-681 (2012). **republished in the Virtual Journal of Biomedical Optics*
75. M. I. Cheema, S. Mehrabani*, Y-A. Peter, **A. M. Armani**, A. G. Kirk, Simultaneous measurement of quality factor and wavelength shift by phase shift microcavity ring down spectroscopy, *Optics Express* **20** 8, 9090-9098 (2012). **Top 5 downloads of the day; republished in the Virtual Journal of Biomedical Optics*
Role: All experimental measurements and theoretical analysis were performed in the Armani lab while M. Cheema was a visiting PhD researcher.
76. C. Shi*, H.-S. Choi*, **A. M. Armani**, Optical microcavities with a thiol-functionalized gold nanoparticle polymer thin film coating, *Applied Physics Letters* **100** 1, 013305 (2012). **republished in APL: Organic Electronics and Photonics and in the Virtual Journal of Nanoscale Science and Technology*
77. B. Biggs*, H. K. Hunt*, **A. M. Armani**, Selective patterning of Si-based biosensor surfaces using isotropic silicon etchants, *Journal of Colloid and Interface Science* **369** 1, 477-481 (2012).
78. L. M. Freeman*, **A. M. Armani**, Photobleaching of Cy5 conjugated lipid bilayers determined with optical microresonators, *IEEE Journal of Selected Topics in Quantum Electronics* **18** 3, 1160-1165 (2012).
79. H.-S. Choi*, D. Neiroukh*, H. K. Hunt*, **A. M. Armani**, Thermo-optic coefficient of polyisobutylene ultra thin films measured with integrated photonic devices, *Langmuir* **28** 1, 849-854 (2012). *highlighted by ACS Noteworthy Chemistry*
80. A. J. Maker*, **A. M. Armani**, Low loss silica on silicon integrated waveguides, *Optics Letters* **36** 19, 3729-3731 (2011). **Top 5 downloads for the day.*
81. C. E. Soteropoulos*, H. K. Hunt*, **A. M. Armani**, Determination of binding kinetics using whispering gallery mode microcavities, *Applied Physics Letters* **99** 10, 103703 (2011). **republished in the Virtual Journal of Nanoscale Science and Technology and in the Virtual Journal of Biological Physics Research*
82. X. Zhang*, **A. M. Armani**, Suspended bridge-like silica 2x2 beam splitter on silicon, *Optics Letters* **36** 15, 3012-3014 (2011). **republished in the Journal of Optical Networking*
83. H. -S. Choi*, S. Ismail*, **A. M. Armani**, Studying polymer thin films with hybrid optical microcavities, *Optics Letters* **36** 11, 2151-2154 (2011). **republished in the Virtual Journal of Nanoscale Science and Technology and highlighted by the Society of Plastics Engineers*
84. L. M. Freeman*, Y. Dayani, S. Li, H-S. Choi*, N. Malmstadt, **A. M. Armani**, Excitation of Cy5 in self-assembled lipid bilayers using optical microresonators, *Applied Physics Letters* **98** 15, 143703 (2011). **republished in the Virtual Journal of Nanoscale Science and Technology and the Virtual Journal of Biological Physics Research*

85. H. K. Hunt*, **A. M. Armani**, Recycling microcavity optical biosensors, *Optics Letters* **36** 7, 1092-1094 (2011). * *republished in the Virtual Journal for Biomedical Optics*
86. H.-S. Choi*, **A. M. Armani**, Thermal nonlinear effects in hybrid optical microresonators, *Applied Physics Letters*, **97** 22, 223306 (2010). **republished in APL: Organic Electronics and Photonics*
87. H. K. Hunt*, C. Soteropoulos*, **A. M. Armani**, Bioconjugation strategies for microtoroidal optical resonators, *Sensors* **10** 10, 9317 (2010). ***2014 Sensors Best Paper Award**
88. H. K. Hunt*, **A. M. Armani**, Label-free biological and chemical sensors, *Nanoscale* **2** 1544-1559 (2010).
89. X. Zhang*, H.-S. Choi*, **A. M. Armani**, Ultimate quality factor of silica microtoroid resonant cavities *Applied Physics Letters*, **96** 15, 153304 (2010). **republished in APL: Organic Electronics and Photonics*
90. H.-S. Choi*, X. Zhang*, **A. M. Armani**, Hybrid silica-polymer ultra-high-Q microresonators, *Optics Letters* **35** 4, 459-461 (2010). **republished in the Virtual Journal of Nanoscale Science and Technology and in the Virtual Journal for Biomedical Optics*
91. H.-S. Hsu*, C. Cai*, **A. M. Armani**, Ultra-low-threshold Er:Yb sol-gel microlaser on silicon, *Optics Express* **17** 25, 23265-23271 (2009). **highlighted in Laser Focus World*
92. R. P. Kulkarni, S. E. Fraser, **A. M. Armani**, Confocal microscopy characterization of optical microcavities, *Optics Letters* **33** 24, 2931-2933 (2008).
93. **A. M. Armani**, R. P. Kulkarni, S. E. Fraser, R. C. Flagan, K. J. Vahala, Label-free single-molecule detection with optical microcavities, *Science* **317** 5839, 783-786 (2007). **highlighted in several technical journals and the popular press*
94. **A. M. Armani**, A. Srinivasan, K. J. Vahala, Soft lithographic fabrication of high-Q polymer microcavity arrays, *Nano Letters* **7** 6, 1823-1826 (2007).
95. **A. M. Armani**, K. J. Vahala, Biological and chemical detection using ultra-high-Q toroidal microresonators, *Biophysical Journal* **92** 1 Suppl. S (2007).
96. **A. M. Armani**, K. J. Vahala, Heavy water detection using ultra-high-Q microcavities, *Optics Letters* **31** 12, 1896-1899, (2006). **highlighted in SPIE Newsroom, Voice of America Interview, Photonics Spectra*
97. **A. M. Armani**, D. K. Armani, B. Min, K. J. Vahala, S. M. Spillane, Ultra-high-Q microcavity operation in H₂O and D₂O, *Applied Physics Letters* **87** 15, 151118 (2005).
98. D. K. Armani, B. Min, **A. L. Martin**, K. J. Vahala, Electrical thermo-optic tuning of ultra-high-Q microtoroid resonators, *Applied Physics Letters* **85** 22, 5439 (2004). **republished in the Virtual Journal of Nanoscale Science and Technology*
Role: Aided in experimental characterization of device, data analysis and manuscript writing.
99. **A. L. Martin**, D. K. Armani, L. Yang, and K. J. Vahala, Replica molded high-Q polymer microresonators, *Optics Letters* **29** 6, 533-535 (2004). **highlighted in MRS Bulletin*

Conference Proceedings

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61. A. M. Armani, S. E. Fraser, "Label-free, single-molecule detection of cytokines in serum", American Society of Cell Biology Annual Meeting 2007.
62. A. M. Armani, K. J. Vahala, "Soft lithographic fabrication of high-Q microresonators", Institute of Electrical and Electronics Engineers (IEEE) Lasers and Electro-Optics Society (LEOS) Summer Topicals 2007.
63. A. M. Armani, K. J. Vahala, "Chemical and Biological detector using ultra-high-Q microresonators", Society of Photo-Optical Instrumentation Engineers (SPIE) Optics East 2006.
64. A. L. Martin, K. J. Vahala, "Chemical and Biological detector using ultra-high-Q microresonators", Society of Photo-Optical Instrumentation Engineers (SPIE) Optics and Photonics 2006.

Contributed Conference Presentations (International/Society)

* indicates member of research group, speaker's name is in bold.

1. **J. He***, A. Kovach*, D. Chen*, R. Yu*, A. M. Armani, "Reversible all-optical control of optical microcavities by a self-assembled azobenzene monolayer", SPIE Photonics West OPTO, 2021.

2. **A. Kovach***, A. Gallegos*, J. He*, H. Choi*, A. M. Armani, “Anti-Stokes and cascaded Stokes Raman microlaser from an organically modified optical resonator” SPIE Photonics West LASE, 2021.
3. **A. Kovach***, A. Gallegos*, J. He*, H. Choi*, A. M. Armani, “Cascaded Stokes and anti-Stokes microlaser based on a surface-functionalized optical resonator with a self-assembled organic monolayer” OSA Frontiers in Optics, 2020.
4. **A. Kovach***, J. He*, D. Chen*, P. Saris*, A. M. Armani, “Optically tunable on-chip microresonator”, SPIE Photonics West LASE, 2020.
5. **D. Chen***, A. Kovach*, F. Lian, S. Poust, V. Gambin, A. M. Armani, “Silicon oxynitride microresonators for Kerr frequency combs”, SPIE Photonics West LASE, 2020.
6. **J. He***, A. Kovach*, A. M. Armani, “Self-assembled azobenzene functionalized molecules for all-optical control of integrated photonics”, ACS Fall Meeting, 2019.
7. **A. Kovach***, J. He*, A. M. Armani, “On-chip photoswitchable microresonator using azo monolayers”, SPIE Optics and Photonics, 2019.
8. **H. Choi***, X. Shen*, D. Chen*, A. M. Armani, “Enhanced surface Raman laser with organic monolayer in silica hybrid resonator”, MRS Spring Meeting, 2019.
9. **H. Choi***, A. M. Armani, “Enhanced Raman-Kerr frequency combs in Zr-doped silica coated hybrid microresonators”, SPIE Photonics West LASE, 2019.
10. **R. Zeto***, S. Soltani*, V. M. Diep*, A. M. Armani, “Stimulated anti-Stokes Raman emission generated by gold nanorod coated optical resonators”, SPIE Photonics West LASE, 2019.
11. **A. Kovach***, D. Chen*, S. Soltani*, S. Poust, V. Gambin, A. M. Armani, “Characterization of the thermo-optic coefficient of silicon oxynitride using whispering-gallery mode resonators”, SPIE Photonics West LASE, 2019.
12. **D. Chen***, A. Kovach*, S. Poust, V. Gambin, A. M. Armani, “Kerr frequency combs generated from SiOxNy microtoroids”, SPIE Photonics West LASE, 2019.
13. **K. Kaypaghian***, S. McBirney, D. Chen, A. Scholtz, A. M. Armani, “Portable optical diagnostic system for malaria detection in low resource setting”, BMES Annual Meeting, 2018.
14. **D. Chen***, S. McBirney, K. Kaypaghian, A. Scholtz, H. Ameri, A. M. Armani, “A portable optical diagnostic system for malaria screening”, OSA Frontiers in Optics Annual Meeting, 2018.
15. **S. E. McBirney***, D. Chen, A. Scholtz, B. Chen, A. M. Armani, “Portable diagnostic for malaria detection in low-resource settings”, CLEO: Applications and Technology, 2018.
16. **V. M. Diep***, R. Castro-Beltran*, A. M. Armani, “Kerr Frequency Comb Generation in CaF₂ Nanocrystal-Coated Whispering Gallery Mode Resonators”, MRS Spring Meeting, 2018.
17. **H. Choi***, A. M. Armani, “Enhancing Frequency Comb Behaviors by Coating Zr-doped Silica Solgel onto Microtoroidal Resonators”, MRS Spring Meeting, 2018.
18. **A. Hudnut***, A. M. Armani, “High-resolution optical polarimetric elastography device for measuring the mechanical behavior of tissue”, SPIE Photonics West, 2018.

19. **D. Chen***, A. Kovach*, X. Shen*, Sumiko Poust, Andrea M. Armani, “Environmentally stable, integrated ultra-high-Q optical cavities”, SPIE Photonics West, 2018.
20. **X. Shen***, R. Beltran*, V. Diep*, S. Soltani*, A. M. Armani, “Organically modified microresonators for high efficiency microlasers”, OSA Frontiers in Optics/Laser Science Conference, 2017.
21. **S. Mehrabani***, A. M. Armani, “Development of Hybrid Microresonators for Optical Vapor Detection and Alternate Fuels”, Air Quality Measurement Methods and Technology, 2017.
22. **E. K. Moen***, B. L. Ibey, Z. A. Steelman, H. T. Beier, A. M. Armani, “Observing Nanoporation through Second Harmonic Generation”, 2nd World Congress on Electroporation, 2017.
23. **E. K. Moen***, B. L. Ibey, H. T. Beier, A. M. Armani, “Exploring membrane dynamics during electric pulse exposure with second harmonic generation”, APS March Meeting, 2017.
24. **H. Choi***, A. M. Armani, “Impact of zirconium dopants on the lasing efficiency of Raman microcavity lasers”, SPIE Photonics West, 2017.
25. **S. Soltani***, A. W. Hudnut*, A. M. Armani, “Optomechanical oscillations in asymmetric whispering gallery mode optical cavities”, SPIE Photonics West, 2017.
26. **R. Castro***, V. Diep*, E. Gungor*, S. Soltani*, A. M. Armani, “Kerr frequency combs generated by hybrid microcavities”, SPIE Photonics West, 2017.
27. **S. E. McBirney***, K. Trinh, A. Wong-Beringer, A. M. Armani, “Using wavelength-normalized optical spectroscopy to improve the accuracy of bacteria growth rate quantification”, SPIE Photonics West, 2017.
28. **E. Moen***, B. L. Ibey, C. C. Roth, R. A. Barnes, H. T. Beier, A. M. Armani, “The influence of medium conductivity on cells exposed to nsPEF”, SPIE Photonics West, 2017.
29. **V. Diep***, A. M. Armani, “Flexible light-emitting nanocomposite based on ZnO nanotetrapods”, MRS Fall Meeting, 2016.
30. **M. Lee***, E. Gungor*, M. Siron*, A. M. Armani, “Intelligently designed UV-cleavable polymers for preventing sun-induced skin damage”, ACS National Meeting, 2016.
31. **J. Park**, K. Park, A. M. Armani, Y-W Song, “Direct synthesis and characterizations of graphene on toroidal microcavities”, EMN Photonics, 2016. (Barcelona, Spain)
32. **E. Moen***, B. L. Ibey, H. T. Beier, A. M. Armani, “Bipolar Nanosecond Pulses Mitigate Membrane Nanoporation”, Biophysical Society Annual Meeting, 2016.
33. **E. Moen***, H. T. Beier, B. L. Ibey, A. M. Armani, “The role of membrane dynamics in electrical and infrared neural stimulation”, SPIE Photonics West, 2016.
34. **V. Sun***, A. M. Armani, “Real-time detection of lipid bilayer assembly and detergent-initiated solubilization”, AIChE Annual Meeting, 2015.
35. **E. Moen***, H. T. Beier, C. C. Roth, G. L. Thompson, A. M. Armani, B. L. Ibey, “Quantitative analysis of nanoscale lipid bilayer modifications via second harmonic generating probes”, BPS Annual Meeting, 2015.

36. **E. Moen***, G. L. Thompson, A. M. Armani, H. T. Beier, B. L. Ibey, "Nonlinear imaging of lipid membrane alterations elicited by nanosecond pulsed electric fields", SPIE Photonics West, 2015.
37. **M. C. Harrison***, A. M. Armani, "Fiber-based polarimetric stress sensor for measuring the Young's modulus of biomaterials", SPIE Photonics West, 2015.
38. **M. V. Chistiakova***, A. M. Armani, "High frequency ultrasound detection with ultra-high-Q silica microspheres", SPIE Photonics West, 2015.
39. **S. Soltani***, A. M. Armani, "Role of geometry in optothermal response of toroidal ultra-high-Q cavities", SPIE Photonics West, 2015. *poster*
40. **T. M. Assi***, V. Sun*, K. Kuo*, A. M. Armani, "Nanoporous silica thin film coatings for optical devices", AIChE Annual Meeting, 2014.
41. **M. V. Chistiakova***, A. M. Armani, "Detecting temperature-dependent desorption with carbon nanotube cluster coated microsphere sensors", AIChE Annual Meeting, 2014.
42. **S. Soltani***, A. M. Armani, "Thermal nonlinearity analysis of toroidal microcavities", IEEE Photonics Conference, 2014.
43. **C. Shi***, S. Soltani*, A. M. Armani, "Gold nanorod plasmonic upconversion microlaser", IEEE Nano, 2014.
44. **S. Mehrabani***, A. Harker*, A. M. Armani, "Ultraviolet sensor based on a silica optical microresonator", MRS Spring Meeting, 2014.
45. **A. J. Maker***, A. M. Armani, "Heterodyning cavity-based microlasers to improve sensing performance", SPIE Photonics West, 2014.
46. **N. Deka***, A. J. Maker*, A. M. Armani, "Titanium-enhanced Raman microcavity laser", SPIE Photonics West, 2014.
47. **S. Mehrabani***, A. M. Armani, "Low-threshold integrated microlaser emitting in the blue formed from thulium-doped silica", SPIE Photonics West, 2014.
48. **S. Soltani***, A. M. Armani, "High-bandwidth low-loss suspended silica splitters", SPIE Photonics West, 2014.
49. **C. Shi***, A. M. Armani, "Low threshold gold nanorod plasmonic laser", SPIE Photonics West, 2014.
50. **M. C. Harrison***, A. M. Armani, "Utilizing embedded optofluidic sensors for fluorescent detection measurements in space and time", SPIE Photonics West, 2014.
51. **A. J. Maker***, N. Deka*, A. M. Armani, "Improving integrated photonics with sol-gel chemistry", AIChE Annual Meeting, 2013.
52. **E. Meinke***, V. Sun*, S. Mehrabani*, A. M. Armani, "Controlling sensitivity of integrated silica based biosensors through surface chemistry", AIChE Annual Meeting, 2013.
53. **S. Mehrabani***, P. Kwong, M. Gupta, A. M. Armani, "Relative humidity optical microsensor based on polymer coated microtoroids", AIChE Annual Meeting, 2013.
54. **X. Zhou**, L. Zhang, A. M. Armani, H. Zhang, W. Pang, "Enhanced dispersive and nonlinear properties of coupled ring resonators by using an embedded microring configuration", CLEO-Pacific Rim, 2013. *poster*
55. **M. V. Chistiakova***, A. M. Armani, "Microcavity-based Raman microlaser in air and in buffer", SPIE Photonics West, 2013.

56. **A. J. Maker***, B. Rose*, A. M. Armani, "Controlling the mode volume in high-Q microcavities with high refractive index coatings", SPIE Photonics West, 2013.
57. **M. I. Cheema**, U. A. Khan, A. M. Armani, A. G. Kirk, "Application of phase shift ring down spectroscopy to microcavities for biosensing", SPIE Photonics West, 2013. *Invited*
58. **C. Shi***, S. Mehrabani*, A. M. Armani, "Improving detection specificity of label-free optical biosensors", AIChE Annual Meeting, 2012. *cancelled due to Tropical Storm Sandy*
59. **E. Meinke***, B. W. Biggs*, R. M. Hawk*, A. M. Armani, "Controlling the density of binding sites on silica based biosensors", AIChE Annual Meeting, 2012. *cancelled due to Tropical Storm Sandy*
60. **R. M. Hawk***, A. M. Armani, "Label-free analysis of DNA Methylation using an optical resonator", AIChE Annual Meeting, 2012. *cancelled due to Tropical Storm Sandy*
61. **J. Gamba***, C. Murthy*, A. M. Armani, "Mass transport to suspended waveguide biosensors", APS March Meeting, 2012.
62. **H. K. Hunt***, A. M. Armani, "Regenerative bioconjugation of whispering gallery mode optical resonators for label-free biosensing", ACS National Meeting, 2012.
63. **M. I. Cheema**, A. G. Kirk, S. Mehrabani*, A. M. Armani, A. A. Hayat, F. Vanier, Y-A Peter, "Experimental demonstration of application of ring-down measurement approach to microcavities for biosensing", SPIE Photonics West, 2012.
64. **A. J. Maker***, A. M. Armani, "Low loss silica on silicon integrated waveguides", SPIE Photonics West, 2012.
65. **X. Zhang***, A. M. Armani, "Suspended silica beam splitters on silicon with large core-clad index difference", SPIE Photonics West, 2012.
66. **S. Mehrabani***, H. K. Hunt*, A. M. Armani, "Reconfigurable visible quantum dot microlasers integrated on a silicon chip", SPIE Photonics West, 2012.
67. **M. C. Harrison***, R. M. Hawk*, A. M. Armani, "Silica suspended waveguide splitter-based biosensor", SPIE Photonics West, 2012.
68. **X. Zhang***, A. M. Armani, "2x2 Suspended silica splitter on silicon", OSA Frontiers in Optics, 2011.
69. **C. Shi***, H-S. Choi*, A. M. Armani, "Gold nanosphere coated microtoroid resonators", OSA Frontiers in Optics, 2011. *Poster*
70. **H-S. Choi***, A. M. Armani, "Athermal polymer coated hybrid microresonators", IEEE Nano, 2011.
71. **B. W. Biggs***, H. K. Hunt*, A. M. Armani, "Surface patterning for selective bioconjugation of oxide-based biosensors", AIChE Annual Meeting, 2011.
72. **C. E. Soteropulos***, H. K. Hunt*, A. M. Armani, "Determination of binding interactions using optical microcavities", AIChE Annual Meeting, 2011.
73. **H-S. Choi***, A. M. Armani, "Thermally stable hybrid organic/inorganic resonant cavities", SPIE Optics and Photonics, 2011.
74. **C. E. Soteropulos***, H. K. Hunt*, A. M. Armani, "Bioconjugation strategies for improved optical sensor performance", SPIE Optics and Photonics, 2011.

75. **L. M. Freeman***, Y. Dayani, S. Li, H-S. Choi*, N. Malmstadt, **A. M. Armani**, "Evanescent field excitation of Cy5-conjugated lipid bilayers using optical microcavities", SPIE Optics and Photonics, 2011.
76. **H. K. Hunt***, C. Soteropulos*, **A. M. Armani**, "Regenerative immobilization of biomolecules on label-free optical biosensors", MRS Spring Meeting, 2011.
77. **H. K. Hunt***, C. Soteropulos*, **A. M. Armani**, "Bioconjugation of ultra-high-Q optical microcavities for label-free sensing", SPIE Photonics West BIOS, 2011.
78. **H-S. Choi***, X. Zhang*, **A. M. Armani**, "Polymer coated silica ultra-high-Q microresonators", OSA Frontiers in Optics, 2010.
79. **X. Zhang***, H.-S. Choi*, **A. M. Armani**, "Effect of substrate impurities on the Q factor of toroidal microcavities", OSA Frontiers in Optics, 2010.
80. **H. K. Hunt***, C. Soteropulos*, **A. M. Armani**, "Bioconjugation of optical microcavities for label-free sensing", AIChE Annual Meeting, 2010.
81. **H. Hsu***, C. Cai*, **A. M. Armani**, "Low threshold Er³⁺/Yb³⁺ co-doped microcavity laser", Society of Photo-Optical Instrumentation Engineers (SPIE) Photonics West OPTO 2010.
82. **A. M. Armani**, Scott E. Fraser, "Label-free, single-molecule detection", Biophysical Society 2008.
83. **A. M. Armani**, S. E. Fraser, R. C. Flagan, "Label-free, single-molecule all-optical sensor", Photonics West BIOS, 2008.
84. **A. M. Armani**, S. E. Fraser, "Label-free detection of cytokines using optical microcavities", Photonics West BIOS, 2008.
85. **A. M. Armani**, S. E. Fraser, "Label-Free, Single Molecule Detection of Cytokines using Optical Microcavities", Laser and Electro-Optics Society, 2007.
86. **A. M. Armani**, S. E. Fraser, K. J. Vahala, "Label-free detection of cytokines", Frontiers in Optics, OSA Annual Meeting, 2007.
87. **A. M. Armani**, S. E. Fraser, K. J. Vahala, "Label-free detection of chemical messenger proteins", International Symposium on Optomechatronic Technologies, Society of Photo-Optical Instrumentation Engineers, 2008. *Poster*
88. **A. M. Armani**, S. Flicker, R. Valenta, R. C. Flagan, K. J. Vahala, "Biochemical sensor based on a resonant microcavity", Frontiers in Optics, OSA Annual Meeting, 2007.
89. **A. M. Armani**, K. J. Vahala, "Soft Lithographic Fabrication of Microresonators", International Symposium on Optomechatronic Technologies, 2007.
90. **A. M. Armani**, K. J. Vahala, "Biological and chemical detection using ultra-high-Q toroidal microresonators", Biophysical Society Annual Meeting, 2007.
91. **A. M. Armani**, K. J. Vahala, "Heavy water detection using ultra-high-Q microresonators", Optical Society of America Frontiers in Optics, 2006.
92. **A. M. Armani**, D. K. Armani, S. M. Spillane, K. J. Vahala, "D₂O Detection using ultra-high-Q microcavities", American Physical Society March Meeting, 2006.
93. **A. L. Martin**, A. Srinivasan, D. K. Armani, B. Min, K. J. Vahala, "Micro-Molded High Q Polymer Resonators for Optical Loss Determination", Materials Research Society Spring, 2005.

94. **A. L. Martin**, L. Yang, D. Armani, and K. J. Vahala, "Micromolding of High Q Toroid Resonators", IEEE Lasers and Electro-Optics Society (LEOS) Fall, 2003.
95. **P. Kik**, **A. L. Martin**, S. A Maier, H. A. Atwater, "Metal nanoparticle arrays for near field optical lithography", Society of Photo-Optical Instrumentation Engineers (SPIE) Optics and Photonics, 2002.
96. **A. L. Martin**, D. G. Grier, "Optical Binding Revisited", Session C30, American Physical Society March Meeting 2001.

Invited Department and Society Chapter Seminars, Technical

*For sake of space, only technical seminars are included. Many additional career advancement, academia vs. industry, and Female in STEM lectures/panels have also been given.

1. "Organic small molecule integrated photonics", University of Houston, 2021.
2. "How small molecules make a big impact", Boston ASM chapter, 2021.
3. "Organic small molecule integrated photonics", University of Exeter, 2021.
4. "Portable UV-C disinfection methods", Nature, 2021.
5. "Portable UV-C disinfection methods", Chapman University, 2021.
6. "Organic small molecule integrated photonics", University of Arizona, 2021.
7. "Photonic Portable sensor systems", UC-Davis, 2021.
8. "Organic small molecule integrated photonics", Duke University, Fitzpatrick Institute for Photonics, 2021.
9. "Organic small molecule integrated photonics", UCSD/UCLA/UCI jt seminar series, 2021.
10. "Organic small molecule integrated photonics", Stony Brook, 2021.
11. "Using photoresponsive molecules in optical technologies", multi institution (Univ San Diego, Point Loma Nazarine, Gonzaga, Chapman, La Sierra and Denver Metro), 2020
12. "Nanomaterial-Enhanced Integrated Photonics", University of Ottawa, 2020.
13. "Organic small molecule integrated photonics", Stanford University, 2020.
14. "Nanomaterial-enhanced Integrated Photonics", University of California-Berkeley, 2020.
15. "The next dimension of detection", ONR I-PREDICT Program team, 2020.
16. "Photonic Portable sensor systems", TAMU BMES, 2020.
17. "Nanomaterial-enhanced Integrated Photonics", ARL Adelphi, 2020.
18. "Using light to probe biomechanical behavior and nonlinear optics of nanomaterials", University of California – Irvine, 2019
19. "Hybrid integrated photonics", University of California – Santa Barbara, 2019.
20. "Using light to probe biomechanical behavior and nonlinear optics of nanomaterials", University of California – San Diego, 2019.
21. "Portable optical diagnostics for disease detection", University of Washington, 2019.
22. "Nanomaterial-enhanced integrated photonics", University of Dayton, 2019.
23. "Portable optical diagnostics for disease detection", University of Massachusetts, Amherst, 2018.
24. "Developing nanotechnology to study biological systems", Chemical & Biological Engineering, University of Wisconsin – Madison, 2018.

25. "Nanomaterial-enhanced integrated photonics", University of Twente, Netherlands, 2018.
26. "Nanomaterial-enhanced integrated photonics", Institute of Optics, University of Rochester, 2018.
27. "Portable sensors based on integrated photonics and functional materials", Southern University of Science and Technology (SUSTC), China, 2018.
28. "Nanomaterial-enhanced integrated photonics", Bilkent University, Turkey, 2018.
29. "Portable sensors based on integrated photonics and functional materials", Dublin Institute of Technology, Ireland, 2017.
30. "Nanomaterial-enhanced integrated photonics", University of Trento, Italy, 2017.
31. "Using light to measure the mechanical behavior of tissue", UCLA Bioengineering, 2017.
32. "Portable sensors based on integrated photonics and functional materials", Columbia Local OSA Section Chapter, 2017.
33. "Nanomaterial-enhanced integrated photonics", GA Tech, 2017.
34. "Portable sensors based on integrated photonics and functional materials", ONR Distinguished Lecture, Office of Naval Research, 2017.
35. "Optical Materials for Preventative Medicine", UCLA Chemistry, 2017.
36. "Nanomaterial-enhanced integrated photonics", Northwestern University, 2016.
37. "Nanomaterial-enhanced frequency combs", Northrop Grumman Physics of Light-Matter Interactions and Excited-State Dynamics Workshop, 2016.
38. "Portable sensors based on integrated photonics and functional materials", Columbia University, 2016.
39. "Nanomaterial-enhanced frequency combs", Northrop Grumman Integrated Photonics Workshop, 2016.
40. "Portable sensors based on integrated photonics and functional materials", Colorado School of Mines, 2016.
41. "Portable sensors based on integrated photonics and functional materials", CSU, Los Angeles, 2016.
42. "Portable sensors based on integrated photonics and functional materials", Swiss Federal Institute of Technology (ETH) Zurich, 2016.
43. "Hybrid organic-inorganic integrated photonics", Swiss Federal Institute of Technology (ETH) Zurich, 2016.
44. "Portable sensors based on integrated photonics and functional materials", University of Colorado- Boulder, 2015.
45. "Portable sensors based on integrated photonics and functional materials", Peking University (China), 2015.
46. "Portable sensors based on integrated photonics and functional materials", Southern Methodist University, 2015.
47. "Controlling light in hybrid integrated photonic devices", Cornell, 2015.
48. "Nanomaterials for integrated optics", NST Division at Argonne National Lab, 2015.
49. "Nanotechnology in biology", HHMI Keynote, Hamline University, 2014.
50. "Hybrid organic-inorganic integrated photonics", KIST (Korea), 2014.

51. "Exploring biological systems with integrated photonic devices", University of Arizona, 2014.
52. "Nanomaterials for optical devices", University of California, Riverside, 2014.
53. "Hybrid organic-inorganic integrated photonics", Koc University, Turkey, 2014. *SPIE Visiting Lecturer*
54. "Non-linear behavior in integrated optical devices", Koc University, Turkey, 2014. *SPIE Visiting Lecturer*
55. "Integrated Photonic Devices for studying extracellular protein signaling", Army Research Lab - Adelphi, 2014.
56. "Understanding the kinetics of extracellular signaling", Office of Naval Research, 2014.
57. "Optical Devices for Integrated Photonics and Sensing Applications", University of California, Berkeley, 2014. Note: part of the "Science and Society Speaker Series"; nominated and selected by the PhD students.
58. "Optical biosensors and related technologies", US Department of Homeland Security, 2013.
59. "Hybrid Photonics", University of Queensland, Australia, 2013.
60. "Optical Devices for Integrated Photonics and Sensing Applications", Swinburne University of Technology, Australia, 2013. *SPIE Visiting Lecturer*
61. "Hybrid Photonics for Telecommunications and Biodetection", University of Victoria, Canada, 2013. *SPIE Visiting Lecturer*
62. "Exploring Biological Systems with Integrated Photonic Devices", California State University at Los Angeles, MORE Programs in Biomedical Science Research Seminar, 2013.
63. "Integrated Photonics for Exploring Biological Systems", Cornell University, Chemical and Biomolecular Engineering Department, 2013.
64. "Manipulating Photons with Hybrid Organic-Inorganic Material Systems", Stanford University, Materials Science Department Seminar, 2013.
65. "Exploring Biological Systems with Integrated Photonic Devices", Stanford University, EE Department and OSA/SPIE Seminar, 2013. *SPIE Visiting Lecturer*
66. "Non-linear Behavior in Integrated Optical Devices", California State University at Los Angeles, Physics Department Colloquium, 2012.
67. "Integrated Photonics for Exploring Biological Systems", University of California at Riverside, Bioengineering Department seminar, 2012. *SPIE Visiting Lecturer*
68. "Non-linear Behavior in Integrated Optical Devices", UCLA Physics Department Colloquium, 2012.
69. "Integrated Photonics for Exploring Biological Systems", Boston University Photonics Center and Electrical and Computer Engineering Department Seminar, 2011.
70. "Hybrid Organic-Inorganic Integrated Photonics", Pomona College Physics Department Colloquium, 2011.
71. "Integrated Photonics for Exploring Chemical and Biological Systems", University of Central Florida: CREOL, 2011.

72. "Micro- and Nanotechnology for Label-free Biophotonics", UT Arlington EE Department, 2010. *SPIE Visiting Lecturer*
73. "Micro- and Nanotechnology for Label-free Biophotonics", UCLA EE Department Seminar and IEEE Seminar, 2010.
74. "Micro- and Nanotechnology for Label-free Biophotonics", USC Physics Department Colloquium, 2010.
75. "Optical Devices for Biodetection", American Society for Metals (ASM) LA Chapter, 2010.
76. "Micro- and Nanotechnology for Label-free Biophotonics", Lehigh University Department of Electrical Engineering, 2010. *SPIE Visiting Lecturer*
77. "Optical Devices for Biological Analysis", USC Biomedical Department Seminar Series, 2010.
78. "Optical Devices for Biodetection", University of California at San Diego, Department of Electrical and Computer Engineering Seminar, 2010.
79. "Using Light in Biology", W.V.T. Rusch Undergraduate Honors Colloquium, 2009.
80. "Optical Sensors for Label-free Bioanalysis", NanoSWEC Workshop on Bioinspired Nanosystems and Nanomaterials, 2009.
81. "Optical Sensing Technologies", APIC, 2009.
82. "Sensors for energy efficiency", Tsinghua-USC 2009 Workshop, 2009.
83. "Biophotonics: Resonant cavity-based sensors", Battelle Seminar Series, 2009.
84. "Single molecule detection of cytokines", 14th Single Molecule Spectroscopy Workshop, 2008.
85. "Detection of attomolar concentrations of timothy grass allergens", Chemistry Seminar Series, USC, 2008.
86. "Detection of allergens at attomolar concentration levels", USC Biomedical Nanoscience Retreat, 2008.
87. "Biophotonics: Resonant detection of single molecules", Genentech, 2008.
88. "Biophotonics: Sensing at the single molecule level", INCBN IGERT Lecture Series, University of New Mexico, 2008.
89. "Biophotonics: Lighting the Way", Chemical Engineering, University of California-Davis, 2008.
90. "Biophotonics: Lighting the Way", Chemical Engineering, University of Minnesota, 2008.
91. "Biophotonics: Lighting the Way", Physics, Carnegie-Mellon, 2008.
92. "Biophotonics: Lighting the Way", Chemical and Biomolecular Engineering Department Seminar Series, Cornell, 2008.
93. "Biophotonics: Sensing at the single molecule level", Engineering Department Seminar Series, EPFL, Lausanne Switzerland, 2008.
94. "Biophotonics: Lighting the Way", Electrical Engineering Department Seminar Series, University of California-San Diego, 2007.
95. "Biophotonics: Resonant Detection of Single Molecules", Materials Science Department Seminar Series, Georgia Tech, 2007.

Invited General/Broad Audience Presentations

1. STS Forum, 2021.
2. Reykjavik Global Forum, 2021.
3. Graduate Roadmap, UCSD SHPE, 2021.
4. USC OWN IT, 2021.
5. Future Faculty Mentoring Panel, AIChE Annual Meeting, 2020.
6. IEEE Tech Talk UV-C vs COVID19, 2020.
7. Women in the Physical Sciences, University of Nebraska, 2019.
8. Academic Leadership for Women in Engineering, SWE Annual Meeting, 2019.
9. OSA Student Leadership Conference, OSA Frontiers in Optics, 2019.
10. Graduate Roadmap, UCSD SHPE, 2019.
11. Cancer Diagnostics, USC Women's Conference, 2019.
12. Malaria Diagnostics, IEEE Photonics Webinar, 2018.
13. Social Media 101: Connecting your way to a brighter career, CLEO, 2018. (panel)
14. Charting a Course in the Photonics Industry, SPIE, 2018.
15. OSA Student Leadership Conference, OSA Frontiers in Optics, 2017.
16. Junior Science and Humanities Symposium, Joint Services (Air Force, Navy, Army), 2017.
17. Charting a Course in the Photonics Industry, SPIE, 2017.
18. Smart Materials, ACS Webinar, 2016.
19. World Economic Forum, 2014.
20. TechFest ITT Bombay, 2013.
21. "Tools of Discovery", TEDx USC, 2012.
22. "Technology for Health and Security", Trojan League of Los Angeles, 2011.
23. "Label-free Optical Sensors", EmTech 2009, MIT Technology Review, 2009.

Invited Workshops: Technical

1. NAE Global Grand Challenges Summit: COVID-19, 2020
2. ICANX, Emergency Engineering, 2020.
3. Bridging NAE Grand Challenges and UN SDG, NAE Grand Challenge Scholar Summit, Washington DC, 2019.
4. Global Grand Challenges Summit, organized by NAE, RAE, CAE, London, 2019. (mentor for USC student team, Summit attendee)
5. Society of Women Engineers Academic Leadership for Women in Engineering, 2019. (speaker)
6. Northrop Grumman Roadmapping workshop, 2019.
7. Women in Physics, Univ of Nebraska, 2019.
8. NIH NCI, Bethesda, 2018.
9. NAE Global Grand Challenge Scholars Program, Hong Kong, 2018.
10. NAE-JAE Frontiers of Engineering Summit, 2018.
11. NSF US-Brazil Workshop on Biosensors, Brazil, 2017.

12. Global Grand Challenges Summit, organized by NAE, RAE, CAE, Washington DC, 2017. (attendee)
13. NAE – Symposium on the Future of Center-Based, Multidisciplinary Engineering Research, 2016.
14. World Economic Forum – Annual Meeting (Davos), 2016. (panelist)
15. STS Forum (Japan), 2015. (attendee)
16. World Economic Forum – Meeting of the New Champions (China), 2015. (speaker)
17. Global Grand Challenges Summit, organized by NAE, RAE, CAE, China, 2015. (attendee)
18. National Academy of Engineering, Frontiers in Engineering Education, 2014. (attendee)
19. World Economic Forum – Meeting of the New Champions (China), 2014. (speaker)
20. NSF IDBR Workshop, 2014. (speaker)
21. NIH Glycobiology and Glycomics Brainstorm Workshop, 2013.
22. Global Grand Challenges Summit, organized by NAE, RAE, CAE, London, 2013. (attendee)
23. Frontiers in Biomedical Research Symposium, organized by The Scripps Research Institute, Indian Wells, 2013. (attendee)
24. Bio-Intelligence Chips (BIC), IARPA-Sponsored Workshop, MITRE, “Role of collection efficiency and binding site specificity in sensor performance”, 2012. (speaker)
25. National Academy of Engineering, Frontiers in Engineering, 2012. (attendee)
26. NIH Innovation Brainstorm: Transforming Discovery into Impact, 2011.
27. PITAC/PCAST Workshop on Nano, Bio, and Info Technology Infrastructure Needs, 2010. (panel)
28. DARPA Workshop on Chip-Scale Photonic Resonance for Biological Detection, 2010. (attendee)
29. Workshop on Nanobiophotonics, French Embassy, “Micro- and Nanotechnology for Label-free Biophotonics”, 2009. (speaker)
30. DARPA Workshop on Optofluidics, “Optical sensing technologies”, 2009. (speaker)
31. European Space Agency Workshop, Cranfield University, “Single molecule detection”, 2009. (speaker)

Contracts and Grants

Only grants and contracts related to the PI’s research are reported. Grants and contracts related to the PI’s role as Cleanroom director (e.g. grants to purchase cleanroom equipment) are not included. Gifts from individual philanthropists under \$50,000 are not included.

Federal, Industry, and Foundation Contracts, Grants and Gifts

- **National Science Foundation, PI: Armani, co-PI: Habib** 7/15/2021-6/30/2024
ECCS: 2126404 \$376,084
“Quantum optics with nonlinear organic small molecule enhanced integrated photonics devices”

- **Office of Naval Research, PI: Franck, Member: Armani** 8/1/2020-7/30/2023
 N00014-21-1-2044 \$430,000 (Armani portion)
 Development of a Predictive Multiscale Model for Blast and Blunt Traumatic Brain Injury
 (PANTHER); total award amount: \$9,995,503

- **Office of Naval Research, PI: Armani** 10/2020-9/2023
 N00014-21-1-2048 \$928,361
 “Novel optical technologies to study complex physiological behavior”

- **Ming Hsieh** 2020
 Gift \$50,000

- **National Science Foundation, PI: Armani** 5/15/2020-4/30/2022
 ECCS: 2028445 \$64,865
 “EAGER: COVID-19 Modular Disinfection System based on Ultraviolet Irradiation”

- **Army Research Office, PI: Armani** 2019-2020
 W911NF-19-10265 \$120,250
 “Probe System for Simultaneous Electro-Optic Analysis of Multifunctional Materials”

- **Northrop Grumman** 2019
 Gift \$40,000

- **Northrop Grumman** 2018
 Gift \$70,000

- **Army Research Office, PI: Armani** 12/2017-12/2022
 W911NF-18-1-0033 \$840,000
 “Triggerable molecular devices for detecting and modulating bioelectric fields”
 “Research apprenticeship experience in nanomaterials for bioelectronics” \$7,500
 “Research apprenticeship experience in nanomaterials for bioelectronics” \$12,000

- **Office of Naval Research, PI: Armani** 3/2017-9/2021
 #N00014-17-1-2270 \$728,614
 “Understanding compression-induced damage in cartilage using high resolution optical
 elastography”
Extension \$82,880

- **Northrop Grumman, PI/Director: Armani** 1/2016-present
 Northrop Grumman-Institute of Optical Nanomaterials and Nanophotonics (NG-ION²); This
 is a renewable, multi-year, multi-PI Institute. \$600,000 (\$245,000 PI)

- **IARPA, PI: Armani** 8/1/2016-12/31/2017
 #007164-00001 \$302,161
 “High-Q optical microcavities with grafted NLO polymer layers”
- **Office of Naval Research, PI: Armani, Co-PI: Hinga** 9/2016-8/2019
 #N00014-16-1-2851 \$326,659 (\$312,736 PI)
 “Engineering Exploratorium (EngX): A STEM Outreach Program”
- **Physical Optics Corporation, NIH sub-contract** 9/2016-10/2017
 --- \$13,992
 “Cardiotoxicity Biomarker Sensing Device, PhI SBIR”
- **Office of Naval Research, PI: Armani** 10/2015-9/2016
 #N00014-16-1-2048 \$117,220
 “Inverted fluorescent microscope with integrated UV through near-IR microspectroscopy system for multi-parameter cell studies”
- **Office of Naval Research, PI: Armani** 10/2015-9/2016
 #N00014-16-1-2028 \$4,000
 “Lasers for Ladies: STEM Outreach”
- **Office of Naval Research, PI: Armani** 10/2014-9/2017
 #N00014-14-1-0374, #N00014-15-1-2703 \$300,000
 “3D Cell Cultures for Studying bTBI in Real-Time”
- **Office of Naval Research, PI: Armani** 9/2011-9/2016
 #N00014-11-1-0910 \$1,000,000
 “Developing Biomimetic Surface Functionalizations for Integrated Optical Devices”
- **Northrop Grumman** 2015
 Gift \$20,000
- **Physical Optics Corporation, NIH sub-contract** 2015
 MiTOR, PhI SBIR \$15,000
- **Fujitsu** 2015
 Gift \$30,000
- **Office of Naval Research, PI: Armani** 10/2014-9/2015
 #N00014-14-1-0617 \$100,000
 “Laser system for non-linear optics and biophotonics”

- **Helios, PI: Armani** 12/2014-7/2015
 “Integrated Photonics Waveguides” \$11,355

- **National Science Foundation-OISE/CNIC, PI: Armani** 5/2013-5/2015
 #CNIC-1263777 \$51,125
 “CNIC: Hybrid Microcavity-based Optical Switches and Pulsed Lasers”

- **Lenterra, PI: Armani** 2014
 “Toroidal cavity sensors” \$1,356

- **Physical Optics Corporation, DARPA sub-contract** 2013
\$4,000

- **National Science Foundation of China, PI: Zhang, co-PI: Armani** 7/2011-6/2012
 #61150110164 200,000yuan (~\$35,000)
 “International Exchange Projects: Ultrahigh-Q-factor on-chip microcavity for sensing applications”

- **National Institutes of Health Director’s New Innovator Award, PI** 9/2010-8/2015
 #1 DP2 OD007391-01 \$2,430,000
 “Ultrasensitive Nanolasers for Epigenetics Investigations”
 #3 DP2 OD007391-01S1: Diversity Supplement for Post-doctoral Scholar \$169,614
 #3 DP2 OD007391-01S2: Diversity Supplement for Post-doctoral Scholar \$149,000

- **Grainger Foundation Award through NAE, PI: Armani, Co-PI: KIYATEC** 2013
 “Real-time monitoring of cell behavior in 3D tissue scaffolds” \$30,000

- **Banyan Biomarkers, PI: Armani** 2012
 “Characterization of Optical Sensor Behavior” \$24,000

- **Battelle Science and Technology International, PI: Armani** 2011-2012
 “Hybrid Integrated Optical Devices” \$174,000

- **National Science Foundation-ENG/ECCS, PI: Armani** 8/2010-7/2013
 #ECCS-1028440 \$330,000
 “Microlaser Biosensor with Integrated Dual Beam Optical Trap”
 REU Supplement, 2011 \$6,000

- **Congressionally Directed Medical Research Program, PI: Armani** 8/2010-7/2013
 #W81XWH-10-1-0406 \$384,000
 “Real-time Detection of DNA Methylation”

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|--|---|
| <p>• Office of Naval Research-DURIP, PI: Armani, co-PI: Povinelli
 #N00014-10-1-0744
 “Instrumentation for Imaging of Integrated Photonic, Biophotonic and Nanoplasmonic Devices”</p> | <p>4/2010-3/2011
 \$147,000</p> |
|--|---|

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|---|--|
| <p>• National Science Foundation-BIO/IDBR, PI: Armani
 #DBI-0852581
 “Single Molecule Detection of Binding Kinetics”
 REU Supplement, 2011
 Instrumentation Supplement, 2013</p> | <p>4/2009-3/2013
 \$1,200,000
 \$18,188
 \$4,284</p> |
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|--|---|
| <p>• Intelligent Optical System Inc
 Gift</p> | <p>2009-2010
 \$1,000</p> |
|--|---|

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|--|---|
| <p>• Office of Naval Research Young Investigator Award, PI: Armani
 #N00014-09-1-0898
 “Interferometric Waveguide Sensor”</p> | <p>6/2009-5/2012
 \$563,000</p> |
|--|---|

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|---|---|
| <p>• DARPA-MTO, managed by ARL, PI: Armani
 #W911NF-09-0041
 “Integrated High-Q Resonant Cavities”</p> | <p>2/2009-8/2010
 \$225,000</p> |
|---|---|

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|--|--|
| <p>• Mitre, PI: Armani
 # 77736
 “Aerosol Sensor”</p> | <p>10/2008-2/2009
 \$100,000</p> |
|--|--|

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|---|---|
| <p>• Powell Foundation, PI: Armani
 Microfabrication Equipment</p> | <p>8/2008-12/2008
 \$50,000</p> |
|---|---|

Internal USC Contracts and Grants

Only the funds which were deposited directly into the PI’s account and are above \$3,000 are reported. Additionally, only funds related to the PI’s research or teaching efforts are included. Funds related to the PI’s role as Cleanroom director (e.g. grants to purchase cleanroom equipment) are not included.

- Ming Hsieh Nanoscience, \$60,000 2014-2015
- New Initiative Request to purchase a fluorometer for lab course, \$11,391 2013-2014
- New Initiative Request to develop Lab Course, \$34,786 2011-2012
- Viterbi Research Innovation Fund, \$10,000 2011-2012

Teaching

USC Courses*

* mean score for “Overall, how would you rate this instructor?”

- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2021 (**5.00**/5.00)
- ENGR 102: Engineering Freshman Academy, Fall 2020 (**4.86**/5.00, **5.00**/5.00) – two sections
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2020 (**5.00**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2019 (**4.45**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Fall 2018 (**4.57**/5.00)
- ENGR 102: Engineering Freshman Academy, Fall 2018 (**4.87**/5.00, **4.82**/5.00) – two sections
- Materials Science 350L: Design and Synthesis of Nanomaterials, Fall 2017 (**4.83**/5.00)
- ENGR 102: Engineering Freshman Academy, Fall 2017 (**4.85**/5.00, **4.90**/5.00) – two sections
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2017 (**4.73**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Fall 2016 (**4.50**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2016 (**4.87**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2015 (**5.00**/5.00)
- ENGR 499: Microscope Design and Construction, Fall 2014 (not scored)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Fall 2014 (**4.60**/5.00)
- ENGR 102: Freshman Academy, Fall 2014 (**4.75**/5.00, **4.46**/5.00) – two sections
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2014 (**4.80**/5.00)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Fall 2013 (**4.75**/5.00)
- Chemical Engineering 491: Nanotechnology Research, Spring 2013 (not scored)
- Materials Science 350L: Design and Synthesis of Nanomaterials, Spring 2013 (**4.65**/5.00)
- Chemical Engineering 491: Nanotechnology Research, Fall 2012 (not scored)
- ENGR 102: Freshman Academy, Fall 2012 (**4.66**/5.00, **4.47**/5.00) – two sections
- Materials Science 350: Design and Synthesis of Nanomaterials, Spring 2012 (**4.72**/5.00)
- ENGR 102: Freshman Academy, Fall 2011 (**4.68**/5.00, **4.32**/5.00) – two sections
- Materials Science 350: Design and Synthesis of Nanomaterials, Spring 2011 (**4.57**/5.00)
- ENGR 102: Freshman Academy, Fall 2010 (**4.76**/5.00, **4.72**/5.00) – two sections
- Materials Science 350: Design and Synthesis of Nanomaterials, Spring 2010 (**4.79**/5.00)
- ENGR 102: Freshman Academy, Fall 2009 (**4.57**/5.00, **4.42**/5.00) – two sections
- Materials Science 350: Design and Synthesis of Nanomaterials, Spring 2009 (**4.62**/5.00)

Scores for ENGR 400 (Honors Research) are not included as this is not an academically rigorous course.

USC Course Development

- **2021/2022:** Designed a new graduate-level class to provide students with foundational training as well as facility-specific training. Distinct from conventional nanofab courses, it covers the basics of cleanroom behavior (working in a clean environment, gowning, protocols for bringing materials into the cleanroom), general safety protocols (chemical, fumehood use, and protocols for hazardous materials commonly found in the facility), cleanroom operations, and chemical disposal protocols. While some of the training does

overlap with General Lab training, much of the information is specific to cleanroom operations, as a clean environment is unique.

- **2015:** In collaboration with Prof. Scott Fraser (Dornsife) and Prof. Andy McMahon (HSC, Stem Cell Institute), developed a course in which a team of undergraduates designed, built, and verified an optical projection tomography microscope, including machining, part sourcing and software development. This required developing the syllabus and course description from scratch, getting approval from UCOC as well as coordinating the dual-campus course. Additionally, for this group of students, I gained approval for this course to satisfy the ABET capstone requirement.
- **2011-2013:** Developed a Lab Component to MASC 350L: wrote proposal to purchase the necessary equipment/instrumentation for the undergraduate lab, and wrote the lab manual and developed protocols for six labs to accompany MASC 350. Labs were phased into the class, 2 per year, from 2011 through 2013.

USC Micro-seminars

- Annenberg Microseminar Series, “Impact of Animation and Computer Renderings on Communicating Science and Technology”, Fall 2010
- Provost’s First Contact Micro-seminar “Singularity: Fact or Fiction”, August/December 2009
- Provost’s First Contact Micro-seminar “Nanotechnology”, August/December 2008

Mentor and Academic Sponsor

**Changed into my research group; only the time in my group is shown.*

Current Members

• Post-doctorate Scholars

- Dr. Patrick Saris 2019-
PhD Chemistry, USC
- Dr. Meghan Barrett (co-advised with Prof. Terry McGlynn) 2022-
PhD Biology, Drexel

• PhD Students

- Jinghan He, Chemistry 2017-
passed screening January 2018, passed candidacy January 2019
- Yasaman Moradi, CHE 2018-
passed screening May 2019
- Kylie Trettner, CHE 2018-
passed screening May 2019
- Raymond Yu, EE, NSF Fellow 2019-
passed screening February 2021
- Debasmita Bannerjee, EE 2019-
- Alexis Scholtz, BME, Provost’s fellowship 2019-
passed screening May 2020
- Fakhra Singhera, CHE, Provost’s fellowship (co-advised with Prof. Jerry Lee) 2019-
passed screening May 2020

- Ruojiao Sun, MASC, Provost's fellowship 2020-
- Armando Urbina, CHE, Provost's fellowship, NSF Fellow 2020-
passed screening May 2021
- Jingxin Zhang, MASC, Provost's fellowship 2020-
- Jiaqi Yuan, EE 2021-
- Tian Sang, MASC, Provost's fellowship 2021-
- Luciana Custer, BME, Provost's fellowship 2021-
- **Undergraduate Students**
- Megan Phi 2021-
- Ernesto Ortiz Zamora, ME 2021-
- Hari Sridhara, CHE 2021-
- Shakthi Srinivasan, BME 2021-
- Sydney Fiorentino, CHE 2021-
- Anna Shaposnik, Iovine and Young 2020-
- Amber Chow, CHE 2019-
- Dania Duran, EE 2019-
- **Visiting Researchers and students**
- Dr. Feifei Lian 2018-2020
Northrop Grumman-Aerospace Systems
- Dr. Vladin Jankovic 2016-2018
Northrop Grumman-Aerospace Systems
- Dr. Jesse Tice 2016-2020
Northrop Grumman-Aerospace Systems
- Alex Teal 2017-2020
CSULA, MS student

Past Members

Graduated or Summer students, first job indicated, if known

• Post-doctoral Scholars

- Yingmu Zhang, 2019-2021 Research Scientist, Jihua Laboratory
PhD Chemistry, TAMU
- Haijie Zuo, 2019-2020 Researcher, Nanjing Univ
PhD EE Xiamen/Australian National University, Postdoc MIT
- Dr. Xiaoqin Shen, 2014-2018 Asst. Professor, Shanghai Tech
PhD National University of Singapore (Chemistry), post-doc UCSB (Chemistry)
- Dr. Eda Gungor, 2013-2017 Intel
PhD Istanbul Tech University (Chemistry), post-doc Univ. of Waterloo (Chemistry)
- Dr. Rigoberto Castro Beltran, 2015-2016 Assoc. Professor, Univ of Guanajuato
PhD, Centro de Investigaciones en Optica – GPOM (Optics), CONACYT Scholar
- Dr. Tushar Rane, 2014-2016 Nanostring Tech
PhD Johns Hopkins (Biomedical Engineering), Viterbi Scholar
- Dr. Cecilia Zurita Lopez, 2013-2014 CSULA, TT Asst. Professor
PhD UCLA, Biochemistry
- Dr. Rasheeda Hawk, 2010-2014 Bastyr University, Adjunct Professor

- PhD USC, Biology, post-doc Caltech, Biology
- Dr. Alper Nese, 2012-2013 Sila Nanotechnologies, Scientist
PhD Carnegie Mellon, Chemistry
 - Dr. Jason Gamba, 2011-2012 Intel, Senior Process Engineer
PhD California Institute of Technology, Chemical Engineering
 - Dr. Heather Hunt, 2009-2011 U Missouri, TT Asst. Professor
PhD California Institute of Technology, Chemical Engineering
- **PhD Students** **only years in my group are shown*
 - Dr. Rene Zeto, MASC, 2016-2021 Keysight
 - Dr. Andre Kovach, CHE, 2015-2021 Northrop Grumman (FTLP)
 - Dr. Dongyu Chen, EE, 2015-2020 Facebook
 - Dr. Hyungwoo Choi, CHE, 2015-2019 Lumentum
 - Dr. Victoria Sun, CHE, 2011-2018 Temple University, MD Program
 - Dr. Alexa Hudnut, BME, 2014-2018 Medtronic
 - Dr. Samantha McBirney, BME, 2012-2018 RAND
 - Dr. Vinh Diep, MASC, 2013-2018 Boeing
 - Dr. Soheil Soltani, EE, 2011-2017 GA Tech, post-doc
 - Dr. Michele Lee, MASC, 2011-2017 FDA
 - Dr. Erick Moen*, EE, 2014-2017 CalTech, post-doc
 - Dr. Mark Harrison, EE, 2010-2015 Campbell University, TT Asst. Prof.
 - Dr. Simin Mehrabani, CHE, 2010-2014 SCAQD
 - Dr. Maria Chistiakova, CHE, 2009-2014 Intel
 - Dr. Ashley Maker, CHE, 2010-2014 Intel, Technical Leaders Program
 - Dr. Ce Shi, MASC, 2009-2014 Coherent
 - Dr. Xiaomin Zhang, MASC, 2008-2013 Finisar
 - Dr. Hong Seok Choi*, MASC, 2008-2012 Intel, Senior Process Engineer
 - **Visiting Researchers**
 - Dr. Vannia Gonzalez Macias, summer 2016 University of Guanajuato
 - Dr. Yong-Won Song, summer/fall 2012, Principal Research Scientist KIST
 - **Visiting MS/PhD Students**
 - Juan Alex Leal Doblado, 2017-2020, CSULA, MS student UCLA, PhD Program
 - Alejandro Rios, 2014-2016, CSULA, MS student UCLA, PhD Program
 - Sekiharu Kure, fall 2014, University of Tokyo, CHE
 - Abian Bentor Socorro, spring/summer 2014, UPNA Spain, EE
 - Tobias Wienhold, fall 2012/spring 2013, KIT Germany, EE
 - Muhammad Cheema, fall 2011, McGill University Canada, EE
 - **MS Students (supported on a GRA/stipend)**
 - Max Hattem, EE, Frederick Angus Gross Scholarship, 2017-2019 Boeing
 - Holly Huber, ME (PDP), 2018-2019 Edwards Scientific
 - Brock Hudnut, MASC (PDP), 2018-2019 Northrop Grumman
 - Sang Bum Kim, CHE, 2018-2019 PhD, UC Davis
 - Yixuan Zhou, EE, 2018-2019 Microsoft

- Lauren Lopez, MASC, 2017-2018 Northrop Grumman
- Arsenii Epishin, MASC, 2016-2017 Tech Staff, Moscow State Univ.
- Amanda Cordes, MASC, SMART Fellowship, 2014-2016 Air Force, SMC
- Kelvin Kuo, CHE, 2011-2015 Photography (independent)
- Sahar Elyahoodayan, BME, 2014-2015 PhD, USC
- Akshay Panchavati, EE, 2013-2015 Consulting (independent)
- Matthew Reddick, Electrical Engineering, 2010-2012 Cercacor
- Hsiu-Sheng Hsu, Materials Science, 2008-2010 PhD, USC
- **Undergraduate Students** *also received a MS degree
 - Romir Karnik, Chemistry 2020-2021
 - Brian Hernandez, Chemistry, 2019-2021 U Michigan PhD program
 - Hsin Pan, EE, 2019-2021 Princeton PhD program
 - Mark Veksler, Iovine and Young Acad, 2019-2021 SAP
 - Rhys Richmond, BME, 2018-2021 duet (founder)
 - Goldie Roth, CHE, 2018-2021 Stanford PhD program
 - Mike Shao, CHE, 2018-2021 bp
 - Arynn Gallegos, EE, 2017-2020 Stanford PhD Program
 - Katie Barajas, Appl Phys, Cornell summer 2019
 - Joelle Burkhardt, CHE, 2017-2019 Microsoft
 - Joshua Greenberg, CHE, 2017-2020 CRC
 - Kristina Kaypaghian, CHE, 2017-2020 Medtronic
 - Teresa Estrella, CHE, 2016-2019 EXPO Center
 - Josh Neutel, CHE, Merit Research, 2016-2019 Stanford MS Program
 - Daniel Cummins, BME, Merit Research, 2016-2019 MD, UCSF
 - Spencer Gilbert, CHE, 2015-2018 PowerCom
 - Brock Hudnut*, ISE/MASC In Diagnostics
 - Omar Garcia, CHE UCLA PhD Program
 - Chase Choate, CHE Post-Bac Program
 - John Lazzeroni, EE, 2016-2018 Navy nuc program
 - Sasha Yousefi, Berkeley, Data Science, summer: 2018 Stanford, MS Data Science
 - Lexie Scholtz, Johns Hopkins BME, summer: 2016, 2017 USC, PhD program
 - Kaitlyn Olah, Stanford, summer 2017 Stanford, MS Design
 - Daniel Amchin, BME, 2014-2017 Princeton, PhD Program
 - Martin Siron, CHE, 2014-2017 Berkeley, PhD program
 - Lea Fang, Biochem, 2014-2017* JHU, OT Program
 - Linda Xu, BME, 2014-2017 Native
 - Gumi Sethi, CHE, 2014-2016 Berkeley, PhD Program
 - Lili Lash-Rosenberg, BME/ME*, 2014-2017* Edwards Life Sciences
 - Grace (Inae) Kim, ME, 2013-2015 LSIS
 - Alexei Naumann, CS, 2013-2015 Conde Nast
 - Leah Tsui, BME/Biochemistry, 2012-2015 Drexel OT Program
 - Tara Assi, CHE, 2013-2015 Freescale Semiconductor

- Samuel Kushner-Lenhoff, EE, 2013-2015 USC, MD program
- Jason Pang, BME, 2013-2014 AT&T
- Julie Strickland, BME, 2013-2014 UT-Austin, PhD program
- Garrison Crouch, CHE, 2012-2014 Notre Dame, PhD Program
- Maxwell Reynolds, ME, 2012-2014 Berkeley, PhD Program/Symbio Robotics
- Andre Kovach, CHE, 2012-2014 USC, PhD program
- Yuting Liu, CS, 2013-2014 USC, MS program
- Emma Meinke, CHE, 2011-2014 Aaren Scientific
- Audrey Harker, CHE, 2010-2013 Berkeley, PhD Program
- Nishita Deka, EE, 2010-2013 Berkeley, PhD Program/Sonera Magnetics
- Nic Murillo, CHE, 2009-2013 Cree
- Christine Zimmerman, CHE, 2011-2013 ---
- Sara Brisbin, BME, 2012 USC, MS program
- Sanjay Rajpoot, CHE, 2012-2013 Sustainable microfarms (became farm(x))
- Bradley Biggs, CHE, 2010-2012 Northwestern, PhD Program
- Daniel Guevara, CHE, 2010-2012 SpaceX
- Chaitanya Murthy, CHE, 2011-2012 UCSD, PhD Program
- Yingchao Lin, EE, 2011 Oracle/Carnegie Mellon, MS Program
- Brian Rose, CHE, 2010-2012* Intel, Process Engineer
- Shehzad Ismail, EE, 2010-2012* Cisco
- Dania Neiroukh, CHE, 2010-2011 Park Systems (Palo Alto, CA)
- Carol Soteropulos, BME, 2010-2011 USC, MD Program
- Ashley Maker, CHE, 2008-2010 USC, PhD Program
- Bamini Balaji, CHE, summer 2009 Amgen
- Warren Cai, CHE, summer 2009 Stanford, PhD Program
- Natalie Landsinger, CHE, 2010 Pastry Chef
- Garima Aggarwal, EE, 2010
- Sanket Satpathy, EE, summer 2009 Princeton, PhD Program
- Mansi Thakar, CHE, 2010
- Catherine Douglass, Chem/Phys, summer 2009 Colorado, PhD Program
- Lindsay Freeman, CHE, 2009-2010 UCSD, PhD Program
- **Center for Engineering Diversity Summer Students**
 - Isaiah Wilkes summer 2019
 - Debbie (Judy) Loyd summer 2019
 - Amechi Macfoy, BME summer 2012
 - Rebecca Casey, CHE summer 2012
 - Mary Williams, BME summer 2011
 - Alejandro Sanchez, ME summer 2011
 - Chelsea Beirne, CHE summer 2010
 - Daniel Guevara, CHE summer 2010
- **Research Experience for Teachers:** Matthew Plomell (2010), Charles Ezeoranu (2010)
- **High School Students**

- William Wang, summer 2021
 - Curtis Burrell, summer 2020
 - Steve Castro, summer 2019
 - Tobias Scott, summer 2019
 - Sarah Damico, summer 2018
 - Gabe Peters, summer 2017
 - Bernard Chen, summer 2016-spring 2017
 - Sydney Agus, summer 2015-spring 2016
 - Kavi Gupta, summer 2014
 - Samantha Wathugala, summer 2013-spring 2014
 - John Casabar, summer 2012-spring 2013
 - Heaven Alexander, summer 2011
 - Christine Zimmerman, summer 2010
 - Nick Benzoni, summer 2009
- UC Berkeley, Engineering
U of Chicago
UC Berkeley, Engineering
UC Berkeley, Engineering
Northwestern, Engineering
UC Berkeley, Engineering
UC Berkeley, Engineering
UCSD, Engineering
USC, Annenberg
USC, Engineering
UCLA, Engineering

Service and Community Development Activities

Professional Service Activities and Appointments

- Founder of USC Virtual Workshops 2020-present
 - PhD Workshop (2020), Academic Career Workshop (2020)
- Co-Founder and Co-Chair of Photonics Online Meet-up 2019-present

Photonics Online Meet-up is the world's first online conference for optics. It consists of online speakers moderated through WebEx and posters shared via Twitter. Participants engage either individually or by joining locally organized POM-hubs. The first event in January 2020 had POM-hubs on 5 continents and over 110 posters.

- Member of World Economic Forum Expert Network, Focus on: Chemistry, Advanced Materials, and Biotechnology 2016-2020
- "Lasers 4 Ladies"/EngX Event Founder (LA-wide outreach event) 2015-2019

Organized event for over 500 middle and high school students from around Los Angeles, including applying for federal funding to support the event, recruiting volunteers from industry and academia to develop hands-on activities, and organizing the logistics required for the event.

- PREM Advisory Board (NSF Center at CSULA) 2019-present
- APL Photonics, Editorial Board 2019-present
- ACS Photonics, Associate Editor 2021-present
- ACS Photonics, Advisory Board 2018-2021
- OSA Award committee 2018-present
- WIE Award committee 2018-present
- IEEE Nano, WIE representative 2017-present
- Northrop Grumman, Advisory Board, Nanophotonics and Plasmonics Lab 2014-present
- *Optics Letters* 2011-present
 - Deputy/Features Editor 2018-present
 - Associate Editor 2011-2017
- SPIE Diversity Committee (3 yr appt) 2020-2023
- IEEE JSTQE, Biophotonics special issue, guest editor 2020-2021

- OSA Optical Fabrication & Testing Technical Group, Executive Committee 2014-2017
- SPIE Information Technology Committee (3 yr appt) 2014-2017
- SPIE Senior Member Selection Committee (3 yr appt) 2013-2016
- Guest Editor, *Sensors* 2013-2014
- Organizing Committee Member
 - Nanomedicine 2014 2011-2016
- Program Committee Chair (year indicated is year of conference)
 - CLEO Application & Technology (A&T1): BMA Program Committee 2017-2020
 - Chair 2020-2021
 - SPIE Photonics West: Laser resonator, Microresonator, & Beam Control 2014-pr
 - Chair 2018-present
 - IEEE Nano: Nano-optics, Nano-optoelectronics & Nano-photonics Track 2014-2018
 - Awards Committee 2014
- Program Committee Member (year indicated is year of conference)
 - SPIE Photonics West: Single Molecule Spectroscopy and Super-resolution Imaging 2020-
 - SPIE Photonics West: Frontiers in Biological Detection 2020-
 - CLEO Pacific Rim: Optical & Photonic Metrology 2020-
 - OSA Advanced Photonics Congress (NOMA) 2019-
 - OSA Integrated Photonics Research (IPR), 3 yr appointment 2014-2016
 - PHOTOPTICS (Spain) 2013-2018
 - SPIE Micro+Nano Materials, Devices and Applications (biannual) 2013-2017
 - IEEE Photonics (Biophotonics Committee) 2011-2016
 - IEEE Optical MEMS and Nanophotonics 2011-2013
 - IEEE Nano, Nanophotonics Committee 2011-2013
 - IEEE Nano, Nanomaterials Committee 2011-2013
 - SPIE International Symposium on Optomechatronic Technologies 2009
- NIH Study Section/Panels
 - Subcommittee F, permanent member 2021-2024
 - Subcommittee F, ad hoc 2021
 - Subcommittee F, ad hoc 2020
 - ZEB1 OSR-E (J1) S, ad hoc member 2020
 - BRAIN, ad hoc member 2020
 - ISD, ad hoc member 2020
 - ISD, ad hoc member 2019
 - BRAIN R21, co-chair 2019
 - BRAIN R21, co-chair 2018
 - BRAIN R21 2018
 - BRAIN R21, chair 2018
 - NIBIB ZRG1-BST-H-50 High risk 2017
 - BRAIN R21 ZEY1-VSN-05 panel 2017
 - SBIR, ZTRI-DPI-4-01 National Center for Advancing Translational Sciences 2016

• BRAIN R21 ZEY1-VSN-01 panel	2016
• NIBIB ZEB1-OSR-E-M1 Career/conference support panel	2016
• ZEY1 VSN special emphasis panel, BRAIN Initiative review	2015
• ISD ad-hoc member (1)	2015
• ZAI1 special emphasis panel, Targeting Latently Infected Cells	2014
• GDD special emphasis panel, Single Cell Analysis	2014
• ISD ad-hoc member (3)	2014
• ISD mail-in member	2013
• NIH/NIAID special emphasis panel	2011
• Proposal Review Panel Member	
• NSF, ENG Directorate (1 panel)	2021
• NSF, CHEM Directorate	2020
• NSF, ENG Directorate (1 panel)	2019
• NSF, ENG Directorate (2 panel)	2018
• NSF, ENG Directorate (1 panel)	2016
• DOE, ARPA-E (full proposal)	2016
• DOE, ARPA-E (pre-proposal)	2016
• NSF, BIO Directorate (external)	2015
• NSF, ENG Directorate (external)	2015
• DOE ARPA-E	2015
• AAAS	2014
• NSF, BIO Directorate (3 panels)	2014
• NSF, ENG Directorate (external)	2014
• NSF, OISE Directorate (external)	2014
• NSF, BIO Directorate (1 panel)	2013
• NSF, ENG Directorate (1 panel)	2013
• ASEE Fellowship	2012, 2013
• NSF, ENG Directorate (4 panels)	2012
• NSF, BIO Directorate (1 panel)	2011
• NSF, ENG Directorate (1 panel)	2011
• NSF, BIO Directorate (1 panel)	2010
• NSF, ENG Directorate (1 panel)	2010
• Other (US State Department, ACS, European Research Council)	
• Journal Referee (Many)	2008-present
<u>Society Memberships (active)</u>	
• American Institute of Chemical Engineers (AIChE)	2009-present
• Senior Member election	2016
• Student chapter faculty advisor	2016-2018
• Optical Society of America (OSA)	2007-present
• Fellow election	2018
• Senior Member election	2016
• Traveling Lecturer	2015-2020
• Student chapter faculty advisor	2016-present
• Institute of Electrical and Electronics Engineers (IEEE)	2007-present

- Senior Member election 2011
- IEEE Nano, WIE representative 2017-present
- Society of Photo-Optic Instrumentation Engineers (SPIE) 2006-present
 - Fellow election 2018
 - Senior Member election 2012
 - Traveling Lecturer 2009-2020
 - Student chapter faculty advisor 2016-present
- AAAS 2016-present
- Sigma Xi Society (full member) 2017-present
- NAI Chapter 2017-present
 - USC Chapter board 2017-present
- ACS 2021-present

USC Service

Note: On sabbatical fall 2015.

University Service

For sake of space, many University-wide/sponsored 1-time panels and lectures on career advancement, academia vs. industry, female in STEM as well as internal proposal review committees are not included.

Committees and Boards

- Strategic Plan Committee – Values 2019-2021
- Mentor Jr Faculty 2018-pr
 - Reginald Hill (Medical School)
- Joint Provost/Academic Senate Task Force on Sexual Harassment 2018-2019
- Conflict of Interest Advisory Committee 2017-2018
- Graduate School Advisory Council 2014-2015
- Chemical Safety Committee 2013-2015
- Office of Postdoctoral Affairs, Advisory group 2012-2015
- Committee on the Revision of the General Education Requirements, member 2012-2015
 - Physical Sciences, sub-committee 2013-2015
 - Life and Physical Sciences, sub-committee 2012-2013
- Committee on Curriculum, Science, Math & Engineering Sub-Committee 2008-2012
- Office of the Provost Strategic Planning Committee, Research and Innovation Subcommittee, Co-Chair 2011

Viterbi School of Engineering Service

Many School-wide/sponsored 1-time panels and lectures on career advancement, academia vs. industry, getting positions in academia, female in STEM as well as lab tours to middle and high school students and USC parents. For sake of space, these are not included.

Committees and Boards

- Student Wellness Task Force 2020-pr
- Engineering Faculty Council 2019-2021
 - Dept representative on EFC 2019-2021
 - Alternate EFC representative for Academic Senate 2019-2021
- Appts, Promotions, and Tenure (APT) 2019-pr

- Executive committee 2019-2020
- Jt. EFC-APT committee 2019-2021
- Search committee, Vice Dean for Administration 2020
- Honors Program Committee 2016-present
 - Director, Research Track of the Engineering Honors Program 2019-present
- Viterbi Undergraduate Awards Committee 2014-2020
- Viterbi Faculty Research Awards Committee 2012-2016
- VSoE Research Committee 2012-2018
- Advisory Committee on East Asia and China Academic Initiatives 2011-2012
- Women in Science and Engineering (WiSE) Advisory Board, Engineering 2010-2012
- Frontiers in Science and Engineering Building Advisory Committee 2010-2012
- Faculty Advisor, USC Undergraduate Chapter of Engineering World Health 2010-2011

Department Service

- Mentor for Jr faculty
 - Maral Mousavi (BME) 2019-2020
 - Shaama Sharada (CHE) 2017-present
 - Eun Ji Chung (BME) 2016-2020
 - Jay Ravichandran (MASC) 2015-present
 - Jongseung Yoon (MASC) 2014-2018
- Search committee, Dept. Business Manager 2020
- Search committee, Dept Chair 2020
- Undergraduate Student Advisor, Chemical Engineering-Nano 2012-2014
- Developed and taught 5-part Seminar Course “PhD Programs” 2010-2017

Committees and Boards

- PhD Programs Review, Chair 2021-2022
- Search committee, Dept Chair 2020-2021
- Annual Faculty Merit Review (AFR) Committee 2020-2021
- COVID-19 Restart Committee 2020-2021
- USC Optical Society (OSA/SPIE Jt Chapter) Advisor 2016-
- AIChE Faculty Advisor 2016-
- Social Media/Web Coordinator 2016-
- Space Committee 2014-2016
- Search Committee, Materials Science Focus 2013, 2014
- Mork Family Graduate Student Recruitment Committee 2009-2016
 - Chair 2012-2014
- Mork Department Graduate Student Seminar Day Committee 2008-2012
- Spitzer Lecture Committee 2008-2011
 - Chair 2010-2011
- Mork Family Lyman Handy Seminar Series Committee 2008-2010
 - Chair 2009-2010
- Mork Family Distinguished Lecturer Seminar Series Committee 2008-2010
 - Chair 2009-2010

Candidacy and Thesis Committees

Within the College of Letters, Arts and Sciences

- Mahsa Rezaiyan, Chemistry PhD, Prof. Mark Thompson 2020-
- Austin Menke, Chemistry PhD, Prof. Mark Thompson 2019-
- Liwei Yi, Chemistry PhD, Prof. Mark Thompson 2019-
- Brenda Ontiveros, Chemistry PhD, Prof. Mark Thompson 2019-2020
- Hammond Sun, Chemistry PhD, Prof. Charles McKenna 2018-2020
- Abegail Tadle, Chemistry PhD, advisor: Prof. Mark Thompson 2017-2021
- Narcisse Ukwitegetse, Chemistry PhD, advisor: Prof. Mark Thompson 2017-2020
- Kim Nguyen, Chemistry PhD, advisor: Prof. McKenna 2015-2016
- Jessica Golden, Chemistry PhD, advisor: Prof. Mark Thompson 2016-2018
- Muzzam Idris, Chemistry PhD, advisor: Prof. Mark Thompson 2016-2017
- Wilber Escorcia, Biology PhD, advisor: Prof. Susan Forsburg 2012-2017
- Amanda Jensen, Biology PhD, advisor: Prof. Susan Forsburg 2012-2017
- Anastasia Kadina, Chemistry PhD, advisor: Prof. Charles McKenna 2012-2015
- Elena Ferri, Chemistry PhD, advisor: Prof. Charles McKenna 2011-2015
- Dana Mustafa, Chemistry PhD, advisor: Prof. Charles McKenna 2010-2013
- Alejandra Beier, Chemistry PhD, advisor: Prof. Barry Thompson 2010-2013
- Beate Burkhart, Chemistry PhD, advisor: Prof. Barry Thompson 2010-2015
- Yara Masri, Architecture PhD, advisor: Prof. Greg Otto 2010-2014
- Richard Giles, Chemistry PhD, advisor: Prof. Kyung Jung 2009-2016
- Patrick Erwin, Chemistry PhD, advisor: Prof. Mark Thompson 2009-2015

Within the Viterbi School of Engineering

- Belinda Garana, Chemical Engineering PhD, Prof. Nick Graham 2021-
- Haoqian Song, Electrical Engineering PhD, Prof. Alan Willner 2020-
- Kai Pang, Electrical Engineering PhD, Prof. Alan Willner 2020-
- Kevin Keomanii-Dizon, Biomedical Engineering PhD, Prof. Scott Fraser 2019-2021
- Tom Orvis, Materials Science PhD, Prof. Jay Ravichandran 2019-2021
- Moon Chul Jung, Chemical Engineering PhD, Prof. Mark Thompson 2019-
- James Jolly, Chemical Engineering PhD, Prof. Nick Graham 2019-
- Peicheng Liao, Electrical Engineering PhD, Prof. Alan Willner 2018- 2019
- Yang Liu, Materials Science PhD, Prof. Jay Ravichandran 2018-
- Lang Shen, Materials Science PhD, Prof. Steve Nutt 2017-
- Wen-Hsuan Chang, Chemical Engineering PhD, advisor: Prof. Wange Lu 2009-2017
- Chenfei Shen, Materials Science PhD, advisor: Prof. Chongwu Zhou 2017-
- Anyi Zhang, Materials Science PhD, advisor: Prof. Chongwu Zhou 2017-2018
- Rebecca Wilson, Materials Science PhD, advisor: Prof. Mark Thompson 2017-2019
- Shanyuan Niu, Materials Science PhD, advisor: Prof. Ravichandran 2017-2019
- Lurui Zhao, Electrical Engineering PhD, advisor: Prof. ES Kim 2017-2021
- Changjing Bao, Materials Science PhD, advisor: Prof. Chongwu Zhou 2017-2019
- Guodong Xie, Electrical Engineering PhD, advisor: Prof. Alan Willner 2016-2017
- He Liu, Electrical Engineering PhD, advisor: Prof. Wei Wu 2016-2017
- Mark Anders, Mechanical Engineering PhD, advisor: Prof. Steve Nutt 2016-2019
- Yuhan Yao, Electrical Engineering PhD, advisor: Prof. Wei Wu 2016-2017

- Xuan Cao, Materials Science PhD, advisor: Prof. Chongwu Zhou 2016-2017
- Daniel Kim, Materials Science PhD, advisor: Prof. Steve Nutt 2016-2017
- Malak Khojasteh, Chemical Engineering PhD, advisor: V. Kresin/Armani (in-dept) 2015-19
- Rohan Dhall, Electrical Engineering PhD, advisor: Prof. S. Cronin 2015-2017
- Yufeng Wang, Electrical Engineering PhD, advisor: Prof. ES Kim 2015-
- Jon Lo, Materials Science PhD, advisor: Prof. Steve Nutt 2015-2017
- Shelley Wang, Electrical Engineering PhD, advisor: Prof. Chongwu Zhou 2014-2016
- Zahra Bakhtiari, Electrical Engineering PhD, advisor: Prof. Alan Willner 2014-2016
- Hui Gui, Materials Science PhD, advisor, Prof. Chongwu Zhou 2014-2016
- Teng Ma, Biomedical Engineering PhD, advisor: Prof. Qifa Zhou 2014-2015
- Ying Li, Materials Science PhD advisor: Prof. Aiichiro Nakano 2014-2016
- Eric Shieh, Electrical Engineering PhD, advisor: Prof. Milind Tambe 2014-2015
- Nisar Ahmed, Electrical Engineering PhD, advisor: Prof. Alan Willner 2014-2017
- Yan Yan, Electrical Engineering PhD, advisor: Prof. Alan Willner 2014-2016
- Xiaochen Li, Materials Science MS, advisor: Prof. Steve Nutt 2013-2014
- Wen-Hsuan Chang, Chemical Engineering PhD, advisor: Dr. Wange Lu 2013-2017
- Hari Mahalingam, Electrical Engineering PhD, advisor: Prof. Bill Steier 2008-2013
- Yuzheng Zhang, Materials Science PhD, advisor: Prof. Steve Nutt 2013-2016
- Shermin Arab, Materials Science PhD, advisor: Prof. Steven Cronin 2013-2017
- Jing Qiu, Materials Science PhD, advisor: Prof. Steve Cronin 2013-2017
- Luyao Zhang, Materials Science PhD, advisor: Prof. Chongwu Zhou 2013-2017
- Mingyuan Ge, Materials Science PhD, advisor: Prof. Chongwu Zhou 2013-2016
- Jiepeng Rong, Materials Science PhD, advisor: Prof. Chongwu Zhou 2013-2015
- Xin Fang, Materials Science PhD, advisor: Prof. Chongwu Zhou 2013-2015
- Mannish Jain, Electrical Engineering PhD, advisor: Prof. Alan Willner 2013-2014
- Andrew Bartynski, Chemical Engineering PhD, advisor: Prof. Mark Thompson 2013-2015
- Carson Riche, Chemical Engineering PhD, advisor: Profs. Gupta and Malmstadt 2012-2016
- Shima Sabbaghianrad, Materials Science PhD, advisor: Prof. Langdon 2012-2016
- Saber Naserifar, Chemical Engineering PhD, advisor: Profs. Sahimi and Tsotsis 2012-2016
- Mahdi Khademi, Chemical Engineering PhD, advisor: Prof. Sahimi 2012-2016
- Salman Khaleghi, Electrical Engineering PhD, advisor: Prof. Alan Willner 2012-2013
- Yang Yue, Electrical Engineering PhD, advisor: Prof. Alan Willner 2011-2012
- Omer Faruk Yilmaz, Electrical Engineering PhD, advisor: Prof. Alan Willner 2011-2013
- Satsuki Takahashi, Electrical Engineering PhD, advisor: Prof. Steier 2011-2012
- Francisco Navarro, Chemical Engineering PhD, advisor: Prof. Mark Thompson 2011-2015
- Jing Ma, Electrical Engineering PhD, advisor: Prof. Michelle Povinelli 2011-2014
- Sahar Soltani, Chemical Engineering PhD, advisor: Prof. Tsotsis/Sahimi 2011-2014
- Christina Naify, Materials Science PhD, advisor: Prof. Steve Nutt 2010-2011
- Biliang Hu, Chemical Engineering PhD, advisor: Prof. Pin Wang 2011-2012
- Thanh Le, Electrical Engineering PhD, advisor: Prof. William Steier 2010-2012
- Xiaoxia Wu, Electrical Engineering PhD, advisor: Prof. Alan Willner 2010-2013
- Yoo Seung Lee, Materials Science PhD, advisor: Prof. William Steier 2010-2011

- Su Li, Chemical Engineering PhD, advisor: Prof. Noah Malmstadt 2010-2015
- Jeng-Yuan Yang, Electrical Engineering PhD, advisor: Prof. Alan Willner 2010-2011
- Irfan Fazal, Electrical Engineering PhD, advisor: Prof. Alan Willner 2010-2011
- Scott Nuccio, Electrical Engineering PhD, advisor: Prof. Alan Willner 2009-2010
- Yu-Hsuan Wu, Materials Science PhD, advisor: Prof. Martin Gundersen 2009-2014
- Wen-Hsuan Chang, Wange Lu 2009-2017
- Lin Zhang, Electrical Engineering PhD, advisor: Prof. Alan Willner 2009-2010
- Shad Thomas, Materials Science PhD, advisor: Prof. Steve Nutt 2008-2009

External

- Ehsan Sani, Chemical Engineering, UCLA, advisor: Nasim Annabi 2018-2020
- Parisa Khiabani, Chemical Eng., Univ. of South Wales, advisor: Prof. J. Gooding 2016
- Jon Swaim, Physics, University of Queensland (Australia), advisor: Prof. W. Bowen 2014
- Jason Gamba, Chemical Engineering, Caltech, advisor: Prof. R. Flagan 2011