Kunal Mukherjee

Assistant Professor, Department of Materials Science and Engineering
Stanford University, Stanford CA, 94305, USA
Email: kunalm@stanford.edu Web: https://crystal.stanford.edu

(Updated October 2025)

RESEARCH VISION

Understanding, controlling, and harnessing crystal defects for improved semiconductor optoelectronics, photonics, and device testbeds in quantum information sciences.

PROFESSIONAL EXPERIENCE

Assistant Professor, Materials Science and Engineering, Stanford University	2020 – present
Assistant Professor, Materials, University of California Santa Barbara	2016 – 20
Postdoctoral Researcher, IBM Research, TJ Watson Center	2015
Postdoctoral Research Associate, Electroceramics Laboratory, MIT	2014
100G Transceiver Engineer, Finisar Corporation	2009 – 10

EDUCATION

Ph.D. Materials Science and Engineering, Massachusetts Institute of Technology, 2014
M.S. Materials for Micro and Nano systems, National University of Singapore, 2009
M.Eng. Materials Science and Engineering, Massachusetts Institute of Technology, 2008
B.Eng. Electrical and Electronics, Nanyang Technological University, Singapore, 2007

AWARDS

- Young Investigator Award, North American MBE conference (2024)
- RSC, Nanoscale Journal, Emerging Investigators (2024)
- Young Scientist Award, International Symposium on Compound Semiconductors (2024)
- Stanford Tau Beta Pi Teaching Honor Roll (2023)
- IOP J. Phys. D: Applied Physics Journal, Emerging Leaders (2021)
- Reed and Polly Anderson Faculty Fellow, Stanford University (2020-22)
- NSF CAREER Award (2020)
- Corbett Prize, International Conference on Defects in Semiconductors (2019)
- IBM PhD Fellowship (2013)
- Singapore-MIT Alliance Graduate Fellowship (2007)
- President's Research Scholar, Nanyang Technological University (2004-06)
- Singapore Airlines Undergraduate Scholarship (2003-07)

AWARDS FOR SUPERVISED STUDENTS

Kelly Xiao, North American MBE Conference 2025, best student presentation
Pooja Reddy, International Conference on MBE 2024, best student presentation
Pooja Reddy, Electronic Materials Conference 2024, best student presentation
Lillian Hughes, European MRS 2023, Early Career Oral Award
Pooja Reddy, North American MBE Conference 2022, best student presentation
Eamonn Hughes, MRS Electronic Materials Conference 2020, best student presentation
Jennifer Selvidge, MRS Electronic Materials Conference 2020, best student presentation

Brian Haidet, MRS Electronic Materials Conference 2018, best student presentation

REFEREED JOURNAL PUBLICATIONS (Group members underlined)

1. K. Xiao, V. Tara, P.D. Reddy, J.E. Meyer, A.M. Skipper, R. Chen, L.J. Nordin, A. Majumdar, K. Mukherjee, Heteroepitaxial growth of highly anisotropic Sb2Se3 films on GaAs, Mater. Horiz., 2025,12, 5829-5838
2. L.B. Hughes, S.A. Meynell, W. Wu, S. Parthasarathy, L. Chen, Z. Zhang, Z. Wang, E.J Davis, K. Mukherjee, N.Y. Yao, A.C. Bleszynski Jayich, A strongly interacting, two-dimensional, dipolar spin ensemble in (111)-oriented diamond, Physical Review X 15, 021035 (2025)
3. K. Xiao, B. Wong, J. Meyer, L. J. Nordin, K. Mukherjee, Epitaxial PbGeSe thin films and their photoluminescence in the mid-wave infrared , Journal of Applied Physics, 137, 145705 (2025)
4. P.D. Reddy, L.J. Nordin, L.B. Hughes, A.-K. Preidl, and K. Mukherjee, Expanded Stability of Layered SnSe-PbSe Alloys and Evidence of Displacive Phase Transformation from Rocksalt in Heteroepitaxial Thin Films, ACS Nano 18, 20, 13437–13449 (2024)
5. J.E. Meyer, L. Nordin, R.A. Carrasco, P.T. Webster, M. Dumont, K. Mukherjee, Engineering PbSnSe Heterostructures for Luminescence Out to 8 μm at Room Temperature, Advanced Optical Materials, 2401746 (2024)
6. S. Parthasarathy, M. Joos, L.B. Hughes, S.A. Meynell, T.A. Morrison, J.D. Risner-Jamtgaard, D.M. Weld, K. Mukherjee, A.C.B. Jayich, Role of Oxygen in Laser Induced Contamination at Diamond-Vacuum Interfaces, Physical Review Applied 22 (2), 024067 (2024)
7. H. Yan, E. Postelnicu, T. Nguyen, S. Corujeira Gallo, A. Stacey, and K. Mukherjee, Multi-microscopy characterization of threading dislocations in CVD-grown diamond films, Applied Physics Letters, 124, 102108 (2024)
8. E.T. Hughes, C. Shang, J. Selvidge, D. Jung, Y. Wan, R.W. Herrick, J.E. Bowers, K. Mukherjee, Gradual degradation in InAs quantum dot lasers on Si and GaAs, Nanoscale, 16, 2966-2973 (2024)
9. T. Nguyen, L. Nordin, K. Mukherjee, Sputtered SnTe thin films on Si and Ge as a plasmonic material, ACS Applied Electronic Materials 6, 2, 950–957 (2024)
10. J.E. Meyer, L. Nordin, T. Nguyen, K. Mukherjee, Mid-wave infrared photoluminescence from low-temperature-grown PbSe epitaxial films on GaAs after rapid thermal annealing, Appl. Phys. Lett. 123, 131109 (2023)
11. E.T. Hughes, G. Kusch, J. Selvidge, B. Bonef, J. Norman, C. Shang, J.E. Bowers, R.A. Oliver, K. Mukherjee, Dislocation-Induced Structural and Luminescence Degradation in InAs Quantum Dot Emitters on Silicon, Phys. Status Solidi A 2300114 (2023)
12. L. Hughes, Z. Zhang, C. Jin, S. Meynell, B. Ye, W. Wu, Z. Wang, E. Davis, T. Mates, N. Yao, K. Mukherjee, A.B. Jayich, Two-dimensional spin systems in PECVD-grown diamond with tunable density and long coherence for enhanced quantum sensing and simulation, APL Materials 11, 021101 (2023)
13. B.B. Haidet, J. Meyer, P. Reddy, E.T. Hughes, K. Mukherjee, Versatile strain relief pathways in epitaxial films of (001)-oriented PbSe on III-V substrates, Physical Review Materials 7, 024602 (2023)

14. M. Nordstrom, T. Garrett, P. Reddy, J. McElearney, J.R. Rushing, K. Vallejo, K. Mukherjee, K. Grossklaus, T.E. Vandervelde, P. Simmonds, Direct integration of GaSb with GaAs(111)A using interfacial misfit arrays, Crystal Growth and Design, 23, 12 (2023)

15. R. France, J. Selvidge, K. Mukherjee, and M. Steiner, Optically-thick GaInAs/GaAsP strain-balanced quantum-well tandem solar cells with 29.2% efficiency under the AM0 space spectrum, Journal of Applied Physics 132, 184502 (2022)

16. E.T. Hughes, M. Dumont, Y. Hu, D. Liang, R. Beausoleil, J.E. Bowers, K. Mukherjee, Dislocation formation and filtering in III-V regrowth on GaAs bonded on Si, Crystal Growth & Design 22 (2022), 5852–5860

17. B.B. Haidet, E.T. Hughes, K. Mukherjee, Epitaxial integration and defect structure of layered-SnSe films on PbSe/III-V templates, Crystal Growth & Design 22 (2022) 3824−3833

18. J. Meyer, A.J. Muhowski, L.J. Nordin, E.T. Hughes, B.B. Haidet, D. Wasserman, K. Mukherjee, Bright mid-infrared photoluminescence from high dislocation density epitaxial PbSe films on GaAs, APL Materials 9 (2021) 111112

19. K. Mukherjee, J. Selvidge, E.T. Hughes, J. Norman, C. Shang, R.W. Herrick, J.E. Bowers, Post-growth formation of kinetically controlled misfit dislocations in III-V lasers on silicon, Journal of Physics D: Applied Physics 54 (2021) 494001

20. C. Shang, Y. Wan, J. Selvidge, E.T. Hughes, R.W. Herrick, K. Mukherjee, J. Duan, F. Grillot, W. Chow, J.E. Bowers, Perspective on advances in quantum dot lasers and integration with Si photonic integrated circuits, ACS Photonics 8 (2021) 2555–2566

21. E.T. Hughes, B.B. Haidet, B. Bonef, K. Mukherjee, Pipe-diffusion-enriched dislocations and interfaces in PbSe-SnSe heterostructures, Physical Review Materials 5, 073402 (2021)

22. B.B. Haidet, L.J. Nordin, A.J. Muhowski, K.D. Vallejo, E.T. Hughes, J. Meyer, P.J. Simmonds, D. Wasserman, K. Mukherjee, Interface structure and luminescence properties of epitaxial PbSe films on InAs (111)A, Journal of Vacuum Science and Technology A 39 (2021) 023404

23. C. Shang, E.T. Hughes, Y. Wan, M. Dumont, R. Koscica, J. Selvidge, R.W. Herrick, A.C. Gossard, K. Mukherjee, J.E. Bowers High-temperature reliable quantum-dot lasers on Si with misfit and threading dislocation filters, Optica 8, (2021) 749-754

24. J. Selvidge, E.T. Hughes, J. Norman, C. Shang, MJ Kennedy, M. Dumont, A. Netherton, Z. Zhang, R.W. Herrick, J.E. Bowers, K. Mukherjee, Reduced dislocation growth leads to long lifetime InAs quantum dot lasers on silicon at high temperatures, Applied Physics Letters 118 (2021) 192101

25. R.M. Kennard, C.J. Dahlman, R.A. DeCrescent, J.A. Schuller, K. Mukherjee, R. Seshadri, M.L. Chabinyc, Ferroelastic Hysteresis in Thin Films of Methylammonium Lead Iodide, Chemistry of Materials 33 (2021) 298–309

26. A. Goswami, S. Šuran Brunelli, B. Markman, A. Taylor, H-Y. Tseng, K. Mukherjee, M. Rodwell, J. Klamkin, Jonathan, C. Palmstrøm, Controlling Facets and Defects of InP Nanostructures in Confined Epitaxial Lateral Overgrowth, Physical Review Materials 4 (2020) 123403

27. S.A. Meynell, C.A. McClellan, L.B. Hughes, T.E. Mates, K. Mukherjee, and A.C. Bleszynski Jayich, Engineering quantum-coherent defects: the role of substrate miscut in chemical vapor deposition diamond growth, Applied Physics Letters 117 (2020) 194001

28. C. Shang, J. Selvidge, E.T. Hughes, J. Norman, A.A. Taylor, A.C. Gossard, K. Mukherjee, and J.E. Bowers, A pathway to thin GaAs virtual substrate on on-axis Si (001) with ultralow threading dislocation density, Physica Status Solidi (A) (2020) 2000402

29. J. Selvidge, J. Norman, E.T. Hughes, C. Shang, D. Jung, A.A. Taylor, MJ Kennedy, R.W. Herrick, J.E. Bowers, and K. Mukherjee, Defect Filtering for Thermal Expansion Induced Dislocations in III-V Lasers on Silicon, Applied Physics Letters 117 (2020) 122101

30. K. Mukherjee, J. Selvidge, D. Jung, J. Norman, A.A. Taylor, M. Salmon, A.Y. Liu, J.E. Bowers, and R.W. Herrick, Recombination-enhanced dislocation climb in InAs quantum dot lasers on silicon, Journal of Applied Physics. 128 (2020) 025703

31. B.B. Haidet, E.T. Hughes, K. Mukherjee, Nucleation control and interface structure of rocksalt PbSe on (001) zincblende III-V surfaces, Physical Review Materials 4 (2020) 033402

32. R.M. France, P. Espinet-Gonzalez, B.B. Haidet, K. Mukherjee, H.L. Guthrey, H.A. Atwater, D. Walker, Development of Lattice-Mismatched GaInAsP for Radiation Hardness, IEEE Journal of Photovoltaics. 10 (2020) 103–108

33. O. Vail, P. Taylor, P. Folkes, B. Nichols, B.B. Haidet, K. Mukherjee, G. de Coster, Growth and Magnetotransport in Thin Film α-Sn on CdTe, Physica Status Solidi (B) 257 (2020) 1800513

34. A. Rice, K. Park, E.T. Hughes, K. Mukherjee, K. Alberi, Defects in Cd3As2 Epilayers Via Molecular Beam Epitaxy and Strategies for Reducing Them, Physical Review Materials 3 (2019) 121201(R)

35. J. Selvidge, J. Norman, M.E. Salmon, E.T. Hughes, J.E. Bowers, R.W. Herrick, K. Mukherjee, Non-radiative recombination at dislocations in InAs quantum dots grown on silicon, Applied Physics Letters 115, 131102 (2019)

36. Y. Hu, D. Liang, K. Mukherjee, Y. Li, C. Zhang, G. Kurczveil, X. Huang, and R. Beausoleil, III/V-on-Si MQW lasers by using a novel photonic integration method of regrowth on bonding template, Light Science and Applications 8 (2019) 1–9

37. R.M. Kennard, C.J. Dahlman, H. Nakayama, R.A. DeCrescent, J.A. Schuller, R. Seshadri, K. Mukherjee, M.L. Chabinyc, Phase Stability and Diffusion in Lateral Heterostructures of Methyl Ammonium Lead Halide Perovskites, ACS Applied Materials and Interfaces. (2019)

38. E.T. Hughes, R.D. Shah, K. Mukherjee, Glide of threading dislocations in (In)AlGaAs on Si induced by carrier recombination: Characteristics, mitigation, and filtering, Journal of Applied Physics. 125 (2019) 165702

39. B. Bonef, R.D. Shah, K. Mukherjee, Fast diffusion and segregation along threading dislocations in semiconductor heterostructures, Nano Letters 19 (2019) 1428–1436

40. K. Mukherjee, M. Vaisman, P.G. Callahan, M.L. Lee, Anomalous tilting in InGaAs graded buffers from dislocation sources at wafer edges, Journal of Crystal Growth. 512 (2019) 169–175

41. J.S. Lee, B. Shojaei, M. Pendharkar, M. Feldman, K. Mukherjee, C.J. Palmstrøm, Contribution of top barrier materials to high mobility in near-surface InAs quantum wells grown on GaSb(001), Physical Review Materials 3, 014603 (2019)

42. D. Jung, J. Norman, Y. Wan, S. Liu, R. Herrick, J. Selvidge, K. Mukherjee, A.C. Gossard, J.E. Bowers, Recent Advances in InAs Quantum Dot Lasers Grown on On-Axis (001) Silicon by Molecular Beam Epitaxy, Physica Status Solidi (A). (2019) 1800602

43. P.G. Callahan*, B.B. Haidet*, D. Jung, G.G.E. Seward, K. Mukherjee, "Direct observation of recombination-enhanced dislocation glide in heteroepitaxial GaAs on silicon". Phys. Rev. Materials. 2 (2018) 081601. (*Equal contribution)

44. K. Mukherjee, C.H. Reilly, P.G. Callahan, G.G.E. Seward, "Recombination activity of threading dislocations in GaInP influenced by growth temperature", Journal of Applied Physics. 123 (16) 165701 (2018).

45. D. Jung, P.G. Callahan, B. Shin, K. Mukherjee, A.C. Gossard, J.E. Bowers, "Low threading dislocation density GaAs growth on on-axis GaP/Si (001), J. Appl. Phys. 122 (22), 225703 (2017)

46. K. Mukherjee, B.A. Wacaser, S.W. Bedell, D.K. Sadana, "Rapid imaging of misfit dislocations in SiGe/Si in cross-section and through oxide layers using electron channeling contrast", Appl. Phys. Lett. 110, 232101 (2017)

47. K. Mukherjee, Y. Hayamizu, C. Kim, L. Kolchina, G. Mazo, S.Y. Istomin, S.R. Bishop, H.L. Tuller, "Praseodymium cuprate thin film cathodes for intermediate temperature solid oxide fuel cells: Roles of doping, orientation, and crystal structure", ACS Appl. Mater. Interfaces, 2016, 8 (50), pp 34295–34302

48. M. Vaisman*, K. Mukherjee*, T. Masuda, K.N. Yaung, E.A. Fitzgerald and M. L. Lee, "Direct-gap 2.1-2.2 eV AlInP Solar Cells on GaInAs/GaAs Metamorphic Buffers", IEEE J. Photovolt. 6, 571 (2016) (*Equal contribution)

49. K. Mukherjee, A.G. Norman, A.J. Akey, T. Buonassisi, and E.A. Fitzgerald, "Spontaneous lateral phase separation of AlInP during thin film growth and its effect on luminescence" J. Appl. Phys. 118 (11), 115306 (2015)

50. K. Mukherjee, P.B. Deotare and E.A. Fitzgerald, "Improved photoluminescence characteristics of order-disorder AlGaInP quantum wells at room and elevated temperatures", Appl. Phys. Lett. 106 (14), 142109 (2015)

51. K. Mukherjee, D. A. Beaton, A. Mascarenhas, M. T. Bulsara, E.A. Fitzgerald, "Effects of dislocation strain on the epitaxy of lattice-mismatched AlGaInP layers", J. Cryst. Growth. 392 (2014), P74-P80

52. K. Mukherjee, D.A. Beaton, T. Christian, E.J. Jones, K. Alberi, A. Mascarenhas, M.T. Bulsara, E.A. Fitzgerald, "Growth, microstructure, and luminescent properties of direct-bandgap InAlP on relaxed InGaAs on GaAs substrates", J. Appl. Phys. 113, 183518 (2013)

53. N.Y. Pacella, K. Mukherjee, M.T. Bulsara, and E.A. Fitzgerald. "Silicon CMOS Ohmic Contact Technology for Contacting III-V Compound Materials." ECS J. Solid State Sci. Technol. 2(2013) P324–P331.

54. D.A. Beaton, T. Christian, K. Alberi, A. Mascarenhas, K. Mukherjee, and E.A. Fitzgerald. "Determination of the direct to indirect bandgap transition composition in AlInP." J. Appl. Phys. 114, 203504 (2013)

55. T. Christian, D.A. Beaton, K. Mukherjee, K. Alberi, E.A. Fitzgerald, A. Mascarenhas, "Amber-green light emitting diodes using order-disorder $Al_xIn_{1-x}P$ heterostructures", J. Appl. Phys. 114, 074505 (2013)

56. K. Mukherjee, T. Teng, R. Jose, and S. Ramakrishna, Electron transport in electrospun TiO_2 nanofiber dye-sensitized solar cells, Appl. Phys. Lett. 95 (1), 012101 (2009)

BOOK CHAPTERS

1. K. Mukherjee, Materials science of defects in GaAs-based lasers, Reliability of Semiconductor Lasers and Optoelectronic Devices
2. J. Norman, D. Jung, A. Liu, J Selvidge, K. Mukherjee, J.E. Bowers, R.W. Herrick, Reliability of lasers on silicon substrates for silicon photonics, Reliability of Semiconductor Lasers and Optoelectronic Devices

PATENTS

1. J. P. de Souza, Y. S. Lee, K. Mukherjee, and D. K. Sadana, "United States Patent: 10,581,109- Fabrication method of all solid-state thin film battery", 3-Mar-2020.
2. S. W. Bedell, C.-W. Cheng, K. Mukherjee, J. A. Ott, D. K. Sadana, and B. A. Wacaser, "United States Patent: 10,460,937 - Post-growth heteroepitaxial layer separation for defect reduction in heteroeptaxial films", 29-Oct-2019.
3. S. W. Bedell, K. Mukherjee, J. A. Ott, D. K. Sadana, and B. A. Wacaser, "United States Patent: 10127649 - Electron channeling pattern acquisition from small crystalline areas", 13-Nov-2018.
4. N. Li, Q. Li, K. Mukherjee, D. K. Sadana, and G. G. Shahidi, "United States Patent: 10043941 – Light emitting diode having improved quantum efficiency at low injection current", 07-Aug-2018.
5. J. P. de Souza, Y. S. Lee, K. Mukherjee, and D. K. Sadana, "United States Patent: 9984949 – Surface passivation having reduced interface defect density", 29-May-2018.
6. S. W. Bedell, K. Mukherjee, J. A. Ott, D. K. Sadana, and B. A. Wacaser, "United States Patent: 9859091- Automatic alignment for high throughput electron channeling contrast imaging", 02-Jan-2018.
7. S. W. Bedell, K. Mukherjee, J. A. Ott, D. K. Sadana, and B. A. Wacaser, "United States Patent: 9741532 - Multi-beam electron microscope for electron channeling contrast imaging of semiconductor material", 22-Aug-2017.
8. S. W. Bedell, R. T. Mo, K. Mukherjee, J. A. Ott, D. K. Sadana, and B. A. Wacaser, "United States Patent: 9739728 - Automatic defect detection and classification for high throughput electron channeling contrast imaging", 22-Aug-2017.

INVITED PRESENTATIONS

1. The Materials Science & Technology (MS&T) technical meeting, September 2025
2. II-VI and Infrared Materials Workshop, September 2025
3. MIT Department of Materials Science and Engineering Seminar, September 2025
4. Berkeley EECS, Solid State Technologies and Devices Seminar April 2025
5. Carnegie Mellon University, Materials Science and Engineering February 2025
6. SPIE Photonics West, January 2025
7. University of Arkansas μATOMS EFRC seminar, October 2024
8. North American Molecular Beam Epitaxy Conference, Boston, MA, July 2024
9. Princeton-GIA Diamond Symposium, May 2024
10. Physics and Chemistry of Surfaces and Interfaces (PCSI), January 2024
11. UST-KIST Seminar, July 2023
12. Compound Semiconductor Week, May 2023
13. Materials Research Society, Fall Symposium, December 2022
14. International Conference on Molecular Beam Epitaxy, September 2022

15. APS March meeting, March 2022
16. UC Berkeley, Materials Science and Engineering, February 2022
17. International Workshop on Physics of Semiconductor Devices, December 2021
18. Microscopy and Microanalysis, Defects in Materials July 2021
19. University of Illinois, Materials Science and Engineering, April 2021
20. University of Michigan, Materials Science and Engineering, November 2020
21. European Microscopy Congress, Copenhagen, August 2020 (declined/canceled)
22. Institute of Energy Efficiency, UC Santa Barbara
23. Stanford University, Department of Materials Science and Engineering, October 2018
24. Global Foundries, Malta, NY, August 2018
25. Materials Research Lab Outreach Symposium, UC Santa Barbara, February 2017
26. Materials Department, UC Santa Barbara, February 2016
27. Rutgers University, Materials Science and Engineering, February 2015
28. University of Cambridge, April 2015
29. Yale University, Department of Electrical Engineering, November 2014

TEACHING

1. Defects and Disorder in Materials (MATSCI 213) – Stanford, Spring 2022-2025
2. Defects in Semiconductors (MATSCI 317) – Stanford, Fall 2021,22,25
3. Microstructure in Materials (MATSCI 213x) – Stanford, Spring 2021
4. Electronic Materials Engineering (MATSCI 152) – Stanford, Winter 2021-2025
5. Materials Structure and Properties (MATRL 100A), UCSB – Fall 2018, 2019
6. Characterization in scanning electron microscopy (MATRL 288C), UCSB – Spring 2018
7. Extended defects in semiconductors (MATRL 288I), UCSB – Fall 2017
8. Metal-organic chemical vapor deposition (MATRL 227), UCSB – Spring 2017, 2019
9. Fundamentals of Electronic Solids I (MATRL 206A/ECE 215A), UCSB – Winter 2017-20
10. Solid state chemistry (3.091), MIT (Teaching assistant) – Fall 2014

PROFESSIONAL ACTIVITIES

- IEEE Electron Devices Society, Optoelectronics Devices Committee (2025 – present)
- Invited organizer of the Electronic Materials Conference (Years: 2018-present)
- Program committee North American Conference Molecular Beam Epitaxy (2019-present)
- Program committee International Conference on Molecular Beam Epitaxy (2022-present)
- Focus topic organizer, American Physical Society March meeting (2020)
- Program committee, International Conference on Crystal Growth and Epitaxy (2019, 2024)
- Program committee, IEEE Photonics Conference (2018,2025)

Reviewer for US NSF, Canadian NSERC, Nature, Applied Physics Letters, Optics Express, Light: Science and Applications, Journal of Applied Physics, Journal of Crystal Growth, Journal of the American Ceramics Society, IEEE Journal of Photovoltaics, Nanoscale, Solar Energy Materials and Solar cells, Journal of Vacuum Sciences and Technology B, Journal of Materials Science: Materials in Electronics

GRADUATE STUDENTS SUPERVISED/CO-SUPERVISED

1. SeongJin Park, Ph.D, Materials Science and Engineering, 2028 (Expected)
2. Kira Martin, Ph.D, Materials Science and Engineering, 2028 (Expected)
3. Laura Stern, M.S., Materials Science and Engineering, 2028 (Expected)

4. Zahra Heussen Ph.D, Electrical Engineering, 2027 (Expected), co-advised with Debbie Senesky
5. Kelly Xiao, Ph.D, Materials Science and Engineering, 2027 (Expected)
6. Tri Nguyen, Ph.D, Materials Science and Engineering, 2026 (Expected)

Graduated

7. Lillian Hughes, Ph.D, Materials, UCSB, 2025, co-advised with Ania Jayich
8. Pooja Reddy, Ph.D, Materials Science and Engineering, 2025
9. Jarod Meyer, Ph.D, Materials Science and Engineering, 2025
10. Eamonn Hughes, Ph.D, Materials, UCSB, 2023, co-advised with John Bowers
11. Jennifer Selvidge, Ph.D, Materials, UCSB, 2021 co-advised with John Bowers
12. Brian Haidet, Ph. D. Materials UCSB, 2021
13. Jared Hoch, M.S. Materials UCSB, 2019
14. Connor Reilly, M.S. Materials UCSB, 2019

POSTDOCTORAL RESEARCHERS SUPERVISED/CO-SUPERVISED

1. Ashlee Garcia, Ph.D. UT Austin, 2025-
2. Eveline Postelnicu, Ph.D. MIT, 2023-

Previous

3. Fatih Ince, Ph.D. U. New Mexico, 2024-
4. Leland J. Nordin, Ph.D. UT Austin, 2021-23
5. Haoxue Yan, Ph.D. MIT, 2022-23

GRADUATE STUDENT PHD THESIS READING COMMITTEES

1. Diego Rivera, Ph.D. Materials Science and Engineering, Stanford, 2026
2. Luis Delfin Manriquez, Ph.D. Materials Science and Engineering, Stanford, 2026
3. Nidhi Kapate, Ph.D. Materials Science and Engineering, Stanford, 2026
4. Melody Wang, Ph.D. Materials Science and Engineering, Stanford, 2024
5. Emily Lindgren Ph.D. Materials Science and Engineering, Stanford, 2023
6. Yifan Wang Ph.D. Materials Science and Engineering, Stanford, 2022
7. Yunzhi Liu Ph.D. Materials Science and Engineering, Stanford, 2021
8. Rhys Kennard, Ph.D. Materials, UC Santa Barbara, 2021
9. Manik Goyal, Ph.D. Materials, UC Santa Barbara, 2021
10. Amanda Matheson, M.S. Materials, UC Santa Barbara, 2020
11. Michelle Labrecque, M.S. ECE, UC Santa Barbara, 2017