Ying-Hsuan Lin

Associate Professor of Environmental Toxicology (link)
Department of Environmental Sciences
University of California, Riverside
318 Science Laboratories I
Riverside CA, 92521

Tel: 951-827-3785
Email: ying-hsuan.lin@ucr.edu

Education

Ph.D.	University of North Carolina at Chapel Hill	Environmental Sciences and Engineering	2013
M.S.	National Taiwan University	Environmental Health	2006
B.S.	National Taiwan University	Entomology, minor in Chemistry	2004

Selected Awards and Honors

Outstanding Reviewer for *Environmental Science: Processes & Impacts* in 2022, Royal Society of Chemistry (2023)
Regents' Faculty Development Award, University of California, Riverside (2020)
UCR Hellman Fellowship, Hellman Fellows Fund (2019)
Regents' Faculty Fellowship, University of California, Riverside (2018)
Robert T. Poe Faculty Development Grant, Chinese American Faculty Association of Southern California (2017)
Michigan Society of Fellows Fellowship, University of Michigan (2015)
Scientific and Technological Achievement Award, Level III, United States Environmental Protection Agency (2014)
Blue Ribbon Paper Award, United States Environmental Protection Agency/National Exposure Research Laboratory/ Atmospheric Modeling and Analysis Division (2013)
Dissertation Completion Fellowship, University of North Carolina at Chapel Hill (2012)
Student Travel Grant, American Association for Aerosol Research (2012)
Study Abroad Scholarship, Ministry of Education, Taiwan (2008)
Phi Tau Phi Scholastic Honor Society, National Taiwan University (2006)

Professional Experience

Associate Professor of Environmental Toxicology (2022 - present)
Department of Environmental Sciences, University of California, Riverside
Assistant Professor of Environmental Toxicology (2016 - 2022)
Department of Environmental Sciences, University of California, Riverside
Michigan Society Postdoctoral Fellow (2015 - 2016)
Michigan Society of Fellows, Department of Chemistry, University of Michigan
Postdoctoral Research Associate (2013 - 2015)
University of North Carolina at Chapel Hill
Graduate Research Assistant (2008 - 2013)
University of North Carolina at Chapel Hill
Research Assistant (2007 - 2008)
Research Center for Environmental Changes, Academia Sinica, Taiwan
Pre-service Chemistry Teacher (2006 - 2007)
Taipei Jingmei Girls High School, Taipei, Taiwan

Undergraduate Summer Research Student (2001and 2002)
Division of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Taiwan

Publications

Published Refereed Technical Journal Articles (Google Scholar Profile)

Annotations: * = corresponding author; G = graduate advisee; U = undergraduate advisee; P = postdoctoral advisee; V = visiting scholar advisee; H = high school student advisee

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91. Woo, W.G; Tran, L.N.G; Tian, L.P; Canchola, A.G; **Lin, Y.-H.***, Dynamic chemistry and toxicity of e-cigarette aerosols and their product waste. *Chem. Res. Toxicol.* **2026**, 39, 3, 253–266. https://doi.org/10.1021/acs.chemrestox.5c00408
90. Lum, M.G; Zhou, Y.; Tran, L.N.G; Bowey, E.; Woo, W.G; Niks, D.; Tian, L.P; Zhu, Y.; Pianalto, A.H; Men, Y.; Collins, D.; Bahreini, R.; **Lin, Y.-H.***, Role of selenium in production of reactive oxygen species from aqueous processing of dimethyl selenide-derived secondary aerosols. *Environ. Sci. Technol.* **2026**, 60, 7, 5608–5618. https://doi.org/10.1021/acs.est.5c13687
89. Canchola, A.; Chen, K.; Rahman, M.Z.; Tran, L.N.G; Woo, W.G; Tian, L.P; **Lin, Y.-H.***; Chou, W.-C.*, Developing a multi-task quantitative structure-activity relationship (QSAR) model for predicting the toxicity potential of chemicals used in e-cigarette products. *J. Hazard. Mater.* **2026**, 503, 141164. https://doi.org/10.1016/j.jhazmat.2026.141164
88. Woo, W.G; Tian, L.P; Diamond, C.; Lum, M.G; Lyons, T.; **Lin, Y.-H.***, Interplay of metals and organics in e-cigarette aerosols enhances the production of reactive oxygen species within ultrafine particles: Implications for passive vaping exposures. *Environ. Sci. Technol.* **2026**, 60 (1), 949–958. https://doi.org/10.1021/acs.est.5c11870
87. MacDonald, A.; Gonzalez, D.; Dickson, M.; Chen, K.G; Raeofy, N.; Cocker, D.; Zhang, H.; Lin, Y.-H.; Bahreini, R., Secondary production of brown carbon particles with an agglomerate structure. *Aerosol Sci. Technol.* **2026**, 60 (2), 152–167. https://doi.org/10.1080/02786826.2025.2566149

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85. Chen, K.G; Mayorga, R.; Tian, L.P; Bahreini, R.; Zhang, H.; **Lin, Y.-H.***, Formation of phthalic anhydride from nighttime oxidation of various heterocyclic volatile organic compounds: Implications for wildfire smoke. *Environ. Sci.: Atmos.* **2025**, 5 (9), 962-972. https://doi.org/10.1039/D5EA00065C
84. Olivares-Salazar, S.E.; Bahreini, R.; Lin, Y.-H.; Castro, T.; Alvarez-Ospina, H.; Salcedo, D., Aerosol composition in a semi-urban environment in central Mexico: Influence of local and regional processes on overall composition and first quantification of nitroaromatics. *Atmosphere* **2025**, 16(7), 827. https://doi.org/10.3390/atmos16070827
83. Chen, K.G; Mayorga, R.; Tian, L.P; Lum, M.G; Tran, L.N.G; Bahreini, R.; Zhang, H.; **Lin, Y.-**

H.[*], Thiophenes as potential contributors to the formation of organosulfates and sulfonates in urban atmospheric aerosols. *J. Geophys. Res. Atmos.* **2025**, 130, e2024JD042454. https://doi.org/10.1029/2024JD042454

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81. Canchola, A.; Tran, L.N.[G]; Woo, W.[G]; Tian, L.[P]; **Lin, Y.-H.**[*]; Chou, W.-C.[*], Advancing non-target analysis of emerging environmental contaminants with machine learning: Current status and future implications. *Environ. Int.* **2025**, 198, 109404**.** https://doi.org/10.1016/j.envint.2025.109404
80. Tian, L.[P]; Woo, W.[G]; **Lin, Y.-H.**[*], Chemical transformation of vaping emissions under indoor atmospheric aging processes. *Chem. Res. Toxicol.* **2025**, 38 (2), 260–269. https://doi.org/10.1021/acs.chemrestox.4c00402

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63. Canchola, A.[G]; Langmo, S.[U]; Meletz, R.[U]; Lum, M.[G]; **Lin, Y.-H.***, External factors modulating vaping-induced thermal degradation of vitamin E acetate. *Chem. Res. Toxicol.* **2023**, 36 (1), 83–93. https://doi.org/10.1021/acs.chemrestox.2c00298

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https://doi.org/10.1016/j.fuel.2022.124283
58. Canchola, A.[G]; Meletz, R.[U]; Khandakar, R. A.[V]; Woods, M.[U]; **Lin, Y.-H.**[*], Temperature dependence of emission product distribution from vaping of vitamin E acetate. *PLoS One* **2022**, 17(3): e0265365.
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https://doi.org/10.1039/D1EA00076D
56. Canchola, A.[G]; Ahmed, C.M.S.[G]; Chen, K.[G]; Chen, J.Y.[G]; **Lin, Y.-H.**[*], Formation of redox-active duroquinone from vaping of vitamin E acetate contributes to oxidative lung injury. *Chem. Res. Toxicol.* **2022**, 35 (2), 254–264.
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2021

55. Chen, J.Y.[G]; Canchola, A.[G]; **Lin, Y.-H.**[*], Carbonyl composition and electrophilicity in vaping emissions of flavored and unflavored e-liquids. *Toxics* **2021**, 9, 345.
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https://doi.org/10.1038/s41370-021-00362-0
53. Wen, X.; Zhang, J.; Luo, H.; Shi, J.; Tsay, C.; Jiang, H.[P]; Lin, Y.-H.; Schroeder, M.; Xu, K.; Guo, J., Synthesis and electrochemical properties of aluminum hexafluorophosphate. *J. Phys. Chem. Lett.* **2021**, 12, 5903-5908.
https://doi.org/10.1021/acs.jpclett.1c01236
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2020

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48. Chen, J.Y.[G]; Rodriguez, E.[U]; Jiang, H.[P]; Chen, K.[G]; Frie, A.L.; Zhang, H.; Bahreini, R.; **Lin, Y.-H.**[*], Time-dependent density functional theory investigation of the UV-Vis spectra of organonitrogen chromophores in brown carbon. *ACS Earth Space Chem.* **2020**, 4 (2), 311-320. https://doi.org/10.1021/acsearthspacechem.9b00328
47. Jiang, H.[P]; Ahmed, C.M.S.[G]; Zhao, Z.; Chen, J.Y.[G]; Zhang, H.; Canchola, A.[G]; **Lin, Y.-H.**[*], Role of functional groups in reaction kinetics of dithiothreitol with secondary organic aerosols. *Environ. Pollut.* **2020**, 263, 114402. https://doi.org/10.1016/j.envpol.2020.114402
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2019

43. Jiang, H.[P]; Ahmed, C.M.S.[G]; Canchola, A.[G]; Chen, J.Y.[G]; **Lin, Y.-H.**[*], Use of dithiothreitol assay to evaluate the oxidative potential of atmospheric aerosols. *Atmosphere* **2019**, 10 (10), 571. https://doi.org/10.3390/atmos10100571
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2018

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photooxidation of alkanes. *Atmos. Chem. Phys.* **2016,** 16, 11001-11018. https://doi.org/10.5194/acp-16-11001-2016

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Publications prior to UCR appointment

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5. Ebersviller, S.; Lichtveld, K.; Sexton, K. G.; Zavala, J.; Lin, Y.-H.; Jaspers, I.; Jeffries, H. E., Gaseous VOCs rapidly modify particulate matter and its biological effects - Part 1: Simple VOCs and model PM. *Atmos. Chem. Phys.* **2012**, 12, 12277-12292. https://doi.org/10.5194/acp-12-12277-2012

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4. Zhang, X.; Lin, Y.-H.; Surratt, J. D.; Zotter, P.; Prévôt, A. S. H.; Weber, R. J., Light-absorbing soluble organic aerosol in Los Angeles and Atlanta: A contrast in secondary organic aerosol. *Geophys. Res. Lett.* **2011**, 38 (21), L21810. https://doi.org/10.1029/2011gl049385
3. Zhang, H.; Surratt, J. D.; Lin, Y.-H.; Bapat, J.; Kamens, R. M., Effect of relative humidity on SOA formation from isoprene/NO photooxidation: Enhancement of 2-methylglyceric acid and its corresponding oligoesters under dry conditions. *Atmos. Chem. Phys.* **2011**, 11, 6411-6424. https://doi.org/10.5194/acp-11-6411-2011

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2. Lin, Y.-H.; Chen, C.-Y.; Wang, G.-S., Analysis of steroid estrogens in water using liquid chromatography/tandem mass spectrometry with chemical derivatizations. *Rapid Commun. Mass Spectrom.* **2007**, 21 (13), 1973-1983. https://doi.org/10.1002/rcm.3050
1. Chen, C.-Y.; Wen, T.-Y.; Wang, G.-S.; Cheng, H.-W.; Lin, Y.-H.; Lien, G.-W., Determining estrogenic steroids in Taipei waters and removal in drinking water treatment using high-flow solid-phase extraction and liquid chromatography/tandem mass spectrometry. *Sci. Total Environ.* **2007**, 378 (3), 352-365. https://doi.org/10.1016/j.scitotenv.2007.02.038

Manuscripts under Review

1. Tian, L.[P]; Woo, W.[G]; Tran, L.N.[G]; Kim, A.[U]; **Lin, Y.-H.***, Size-resolved characterization of aged vaping aerosols: Implications for indoor exposure and toxicity.
2. Tran, L.N.[G]; Wang, G.[U]; Neri, C.[U]; Kim, A.[U]; Woo, W.[G]; Lum, M.[G]; **Lin, Y.-H.***, Leaching of heavy metals, nicotine, and other organic compounds from disposable e-cigarette waste and their environmental implications.

Book Chapter Contributions

1. Lin, Y.-H., Importance of atmospheric aerosols and related analytical methods. **2018** In: RY Surampalli, TC Zhang, SK Brar, K Hegde, R Pulicharla, and M Verma (ed.) Handbook of environmental engineering. McGraw-Hill Education. p.515-520.

Editorial

1. Contini, D.; Lin, Y.-H.; Hänninen, O.; Viana, M., Contribution of aerosol sources to health impacts. *Atmosphere* **2021**, 12(6), 730. https://doi.org/10.3390/atmos12060730

Technical Reports

1. Surratt, J. D.; Lin, Y.-H.; Arashiro, M.; Vizuete, W.; Zhang, Z.; Gold, A.; Jaspers, I.; Fry, R.C., Understanding the Early Biological Effects of Isoprene-Derived Particulate Matter Enhanced by Anthropogenic Pollutants. Health Effects Institute, Research Report 198, March **2019.**
2. Lin, Y.-H.; Liu, J., Determination of Thermal Degradation Products and Residuals of PFAS-laden Sorbent Materials in Gas and Condensed Phases. SERDP ER21-1191 Final Report. September **2024**.

Invited Presentations and Seminars

Annotations: * = invited plenary speaker

1. Production of reactive oxygen species from selenium-containing secondary organic aerosols, Invited platform presentation at Asia Oceania Geosciences Society (AOGS) **2025** Annual Meeting (AS82-009). Singapore. July 28, 2025.
2. Dynamic chemistry and toxicity of e-cigarette aerosols and their product waste, National Cheng Kung University, Department of Occupational and Environmental Medicine, March 27, **2025**.
3. Formation, evolution, and impacts of atmospheric organic aerosols, National Taiwan University, Graduate Institute of Environmental Engineering (GIEE), March 25, **2025**.
4. Dynamic chemistry and toxicity of e-cigarette aerosols and their product waste, GAIA STEM Lectures Series, December 21, **2024**
5. Dynamic chemistry and toxicity of secondhand e-cigarette aerosols, UCR BREATHE center workshop, May 24, **2024**
6. Dynamic characteristics and impacts of atmospheric organic aerosols, Indian Institute of Technology Bombay, Environmental Science and Engineering Department (ESED), March 20, **2024**
7. Chemical composition as a determinant of air pollution toxicity, California State University, San Bernardino, guest lecture in Epidemiology, March 13, **2023**
8. Dynamic characteristics and health effects of atmospheric organic aerosols, 38th Informal Gathering on Atmospheric Science & Photochemistry (IGASP), June 15, **2022***
9. Dynamic characteristics and impacts of atmospheric organic aerosols, UCR Chemical and Environmental Engineering Seminar Series, January 14, **2022**
10. Chemical composition as a determinant of air pollution toxicity, University of Florida, EES Air Resources Seminar, September 15, **2021**
11. Formation and impacts of atmospheric brown carbon, UCR Hellman Symposium, March 24, **2021**
12. Chemical composition as a determinant of air pollution toxicity, UCR Environmental Toxicology Seminar Series, February 26, **2020**
13. Linking chemical composition and health effects of particulate air pollution from a molecular perspective, National Health Research Institutes, Taiwan, January 10, **2020**
14. Formation and toxicity of secondary organic aerosol from oxidation of dimethyl selenide. Invited platform presentation at AGU Fall Meeting 2019. San Francisco, CA USA. December 12, **2019**.
15. Electrophilic and oxidative potential of atmospheric organic aerosols, UCR BREATHE center workshop, May 17, **2019**.
16. Atmospheric transformation and health effects of organic aerosols, Institutes of Environmental Health and Occupational Health, National Taiwan University, Taipei, Taiwan, May 4, **2017**
17. Chemical characterization of atmospheric organic aerosols with mass spectrometric techniques,

Chinese Environmental Analytical Society (CEAS) annual meeting, Taoyuan, Taiwan, May 3, **2017***

18. The air we breathe, Michigan Society of Fellows, University of Michigan, Ann Arbor, Michigan, USA. November 15, **2016**
19. Chemical and toxicological characterization of isoprene-derived secondary organic aerosol, Oregon State University, Corvallis, Oregon, USA. October 20, **2016**
20. Air pollution and human health: How trees add to smog production, Michigan Society of Fellows, University of Michigan, Ann Arbor, Michigan, USA. March 14, **2016**
21. Atmospheric transformation and health effects of organic aerosols, University of California-Riverside, California, USA. March 8, **2016**
22. Secondary organic aerosol formation from isoprene and its implications for climate and human health, Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan. February 24, **2016**
23. Understanding the atmospheric transformation and health effects of isoprene-derived secondary organic aerosol, Department of Environmental Health Sciences, University of Michigan, Ann Arbor, Michigan, USA. November 6, **2015**
24. Influences of anthropogenic emissions on secondary organic aerosol formation from isoprene photooxidation, Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan. December 11, **2013**
25. Influences of anthropogenic emissions on secondary organic aerosol formation from isoprene photooxidation, Department of Environmental Engineering, National Cheng Kung University, Tainan, Taiwan. December 18, **2013**

Professional Memberships

1. American Association for Aerosol Research (2012-present)
2. American Chemical Society (2016-present)
3. American Geophysical Union (2019)

Teaching Experience

Instructor

University of California, Riverside

1. ENSC200/ENTX 200/CHEM246 — Fate and Transport of Chemicals in the Environment
   Term: Spring 2017; Enrolled Students: 16 (Co-Instructor, 50%)
   Term: Spring 2018; Enrolled Students: 21 (Co-Instructor, 50%)
   Term: Spring 2019; Enrolled Students: 15 (Co-Instructor, 50%)
   Term: Spring 2020; Enrolled Students: 11 (Co-Instructor, 50%)
   Term: Spring 2021; Enrolled Students: 11 (Co-Instructor, 50%)
   Term: Winter 2022; Enrolled Students: 9 (Co-Instructor, 50%)
   Term: Winter 2023; Enrolled Students: 14 (Co-Instructor, 50%)
   Term: Winter 2024; Enrolled Students: 8 (Co-Instructor, 50%)
   Term: Winter 2025; Enrolled Students: 9 (Co-Instructor, 50%)
   Term: Winter 2026; Enrolled Students: 17 (Co-Instructor, 50%)
2. ENSC136/CHEM136 — Chemistry of Natural Waters
   Term: Fall 2017; Enrolled Students: 26
   Term: Fall 2018; Enrolled Students: 28
   Term: Fall 2019; Enrolled Students: 29

Term: Fall 2020; Enrolled Students: 25
Term: Fall 2021; Enrolled Students: 25
Term: Fall 2022; Enrolled Students: 34
Term: Fall 2023; Enrolled Students: 25
Term: Fall 2024; Enrolled Students: 24
Term: Fall 2025; Enrolled Students: 25

3. ENSC 177 — Environmental Sampling and Analysis
   Term: Spring 2020; Enrolled Students: 17
   Term: Spring 2022; Enrolled Students: 17
   Term: Spring 2024; Enrolled Students: 17
4. NASC093 — Freshman Advising Seminar in the Natural and Agricultural Sciences
   Term: Fall 2017; Enrolled Students: 22
   Term: Fall 2018; Enrolled Students: 24
5. ENSC401 — Professional Development in Environmental Sciences
   Term: Winter 2018; Enrolled Students: 9
6. ENTX 270 — Seminar in Environmental Toxicology
   Term: Spring 2019; Enrolled Students: 42
7. ENTX271 — Seminar in Environmental Toxicology (ENTX Symposium)
   Term: Spring 2019; Enrolled Students: 35
   Term: Spring 2020; Enrolled Students: 38
   Term: Spring 2021; Enrolled Students: 33
   Term: Spring 2025; Enrolled Students: 26

University of Michigan
CHEM 242 — Introduction to Chemical Analysis Laboratory
Term: Fall 2015; Enrolled Students: 22
Term: Fall 2016; Enrolled Students: 20

Current Student Mentoring

Current Graduate Student Supervision – Major Professor

1. Michael Lum, PhD student, NSF GRFP Awardee (2023-2026), Environmental Sciences Graduate Program, University of California, Riverside (09/2021-present)
2. Wonsik Woo, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (09/2022-present)
3. Lillian Tran, PhD student, NSF GRFP Awardee (2025-2028), Environmental Toxicology Graduate Program, University of California, Riverside (09/2023-present)
4. Sophia Horn, MS student, Environmental Toxicology Graduate Program, University of California, Riverside (09/2024-present)

Current Postdoctoral Scholar Supervision – Primary Advisor

1. Linhui Tian, Department of Environmental Sciences, University of California, Riverside (02/2023-present)

Current Undergraduate Student Supervision – Research Advisor

1. Beverly Arnold, Undergraduate Researcher, Environmental Sciences (Spring 2025- present)

Current Student Supervision - Committee Member

Advisory Committee

1. Pedro De Allende, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (09/2025-present)
2. Patricia Sidhom, MS student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2025-present)
3. Nicole Yang, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2024-present)
4. Qiqi Lin, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (05/2024-present)
5. Lillian On, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (06/2024-present)
6. Bradley Ries, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2024-present)

Dissertation Committee

1. Lin Tan, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (11/2023-present)
2. Ting Zhao, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (05/2024-present)
3. Yuyang Shen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2024-present)
4. Xin Wen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (06/2024-present)

Completed Student Mentoring

Completed Graduate Student Supervision – Major Professor

1. Jin Y. Chen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (01/2017-06/2021); Current position: T32 Postdoctoral Fellow at University of Louisville.
2. CM Sabbir Ahmed, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (09/2017-06/2021); Current position: ORISE Postdoctoral Fellow at US Food and Drug Administration (FDA).
3. Alexa Canchola, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (07/2019-03/2024); Current position: Assistant Project Scientist at University of California, Riverside.
4. Kunpeng Chen, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2019-06/2024); Current position: Postdoctoral Scientist at University of California, Riverside.
5. Md Rubaiat Nurul Alam, MS student, Environmental Toxicology Graduate Program, University of California, Riverside (09/2021-12/2023)

Completed Postdoctoral Scholar Supervision – Primary Advisor

1. Huanhuan Jiang, Department of Environmental Sciences, University of California, Riverside (06/2018 – 12/2020); UCR Chancellor's Postdoctoral Fellow (7/2019-12/2020); Current position: Regulatory Scientist at Scientific Horizons Consulting, LLC.
2. Junli Wang, Department of Environmental Sciences, University of California, Riverside (09/2022-06/2024)

Completed Visiting Scholar Supervision – Research Advisor

1. Riste Ara Khandakar (Holy), Department of Environmental Sciences (07/2021 – 10/2021)

Completed Graduate Student Supervision – Dissertation Committee Member

1. Danielle Stevenson, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (11/2023- 12/2023)
2. Yumeng Cui, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (03/2021-09/2023)
3. My (Crystal) Hua, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (04/2023- 06/2023)
4. Yaxin Xiong, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (03/2021-05/2023)
5. Bochao Li, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (02/2020- 11/2022)
6. Qiaoshi Jiang, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (03/2021-10/2022)
7. Roxana Coreas, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (11/2019-09/2022)
8. Talha Rafiq, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (06/2021-09/2022)
9. Esther Omaiye, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (04/2019-06/2022)
10. Monica Hope, MS student, Environmental Sciences, University of California, Riverside (07/2021-05/2022)
11. Edward Dominguez, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (12/2020- 02/2022)
12. Claudia Avila, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (07/2019-06/2021)
13. Nilofar Raeofy, MS student, Environmental Sciences Graduate Program, University of California, Riverside (04/2021-06/2021)
14. Qi Xu, MS student, Environmental Toxicology Graduate Program, University of California, Riverside (07/2018-06/2019)
15. Alexander Frie, PhD candidate, Environmental Sciences Graduate Program, University of California, Riverside (06/2018-06/2019)
16. Stephen Zimmerman, MS student, Environmental Sciences, University of California, Riverside (06/2017-09/2018)
17. Justin Dingle, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2017-06/2018)

Qualifying Exam Committee

1. Nicolette Andrzejczyk, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2018)
2. Esther Omaiye, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (04/2019)
3. CM Sabbir Ahmed, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (06/2019)

4. Claudia Avila, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (07/2019)
5. Roxana Coreas, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (07/2019)
6. Jin Y. Chen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2019)
7. Bochao Li, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (02/2020)
8. Qiaoshi Jiang, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (02/2020)
9. Lei Yang, PhD Student, Department of Chemistry, University of California, Riverside (05/2020)
10. Sahar Ghadimi, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (06/2020)
11. Zekun Liu, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (07/2020)
12. Yaning Miao, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (08/2020)
13. Yaxin Xiong, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2020)
14. Yumeng Cui, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2020)
15. Linia Tashmim, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (09/2020)
16. Edward Dominguez, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (12/2020)
17. Wen Zhang, PhD Student, Department of Chemistry, University of California, Riverside (06/2021)
18. Talha Rafiq, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (06/2021)
19. Isis Frausto-Vicencio, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (06/2021)
20. Kunpeng Chen, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (06/2021)
21. Xuanlin Du, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (08/2021)
22. Tianbo Tang, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (09/2021)
23. Hossein Pazooki, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (09/2021)
24. Craig Steven Sheldon, PhD Student, Department of Chemistry, University of California, Riverside (12/2021)
25. Zachary Hutchins, PhD Student, Department of Chemistry, University of California, Riverside (08/2022)
26. Tianyi (Jerry) Ma, PhD Student, Department of Mechanical Engineering, University of California, Riverside (09/2022)

27. Minghao Han, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (12/2022)
28. Huawei Li, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (06/2023)
29. Ying Zhou, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (06/2023)
30. Lin Tan, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (08/2023)
31. Yihan Wang, Department of Chemical and Environmental Engineering, University of California, Riverside (09/2023)
32. Ting Zhao, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (05/2024)
33. Kyah Gracia, PhD student, Department of Chemical and Environmental Engineering, University of California, Riverside (05/2024)
34. Katia Hatem, PhD Student, Department of Chemistry, University of California, Riverside (06/2024)
35. Erin Bowey, PhD Student, Department of Chemistry, University of California, Riverside (06/2024)
36. Yuyang Shen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (08/2024)
37. Xin Wen, PhD student, Environmental Toxicology Graduate Program, University of California, Riverside (06/2025)
38. Ria Lian, PhD Student, Department of Chemistry, University of California, Riverside (07/2025)
39. Lynne Xu, PhD student, Environmental Sciences Graduate Program, University of California, Riverside (07/2025)
40. Lintong Cai, PhD Student, Department of Chemical and Environmental Engineering, University of California, Riverside (07/2025)

Completed Undergraduate Student Supervision – Research Advisor

1. Elizabeth Teng, Undergraduate Researcher, CNAS STEM Summer Bridge to Research Program, Biology Major (Spring 2025-Summer 2025)
2. Constantino Neri, Undergraduate Researcher, RCC-STEM RISE Program (Summer 2025)
3. Anushka Sinha, Undergraduate Researcher, Environmental Sciences (Fall 2024- Spring 2025)
4. Anna Kim, Undergraduate Researcher, CNAS STEM Summer Bridge to Research Program, Biochemistry Major (Summer 2024-Spring 2025)
5. Gregory Wang, Undergraduate Researcher, Environmental Sciences (Winter 2025-Spring 2025)
6. Eduardo Arellano Luna, Undergraduate Researcher, Chemistry Major (Winter 2025)
7. Kathryn McVeigh, Undergraduate Researcher, RCC-STEM RISE Program (Summer 2024)
8. Annette Mercado-Sanchez, Undergraduate Researcher, CNAS STEM Summer Bridge to Research Program, Chemistry Major (Summer 2023-Spring 2024)
9. Jose Mendoza, Undergraduate Researcher, Environmental Sciences Major (Winter 2023-Spring 2023)
10. Caitlin Hamilton, Undergraduate Researcher, Chemistry Major (Fall 2022-Spring 2023)
11. Ruth Meletz, Undergraduate Researcher, MARC U STAR Summer Pre-Trainee Program, MARC Scholar, Environmental Sciences Major (Summer 2021-Spring 2023)

12. Janet Albarran, Undergraduate Researcher, Biochemistry Major (Fall 2021-Spring 2023)
13. Siri Langmo, Undergraduate Researcher, UCR Chancellor's Research Fellow, Biology Major (Fall 2021-Spring 2023)
14. Megan Woods, CNAS STEM Summer Bridge to Research Program, UCR Chancellor's Research Fellow, Chemistry Major, University of California, Riverside (08/2020 – 06/2022)
15. Maya KC-Jordan, Pre-Medical Sociology Major, University of California, Riverside (04/2021 – 06/2022)
16. Jose Andres Garcia, Undergraduate Researcher, Department of Chemical and Environmental Engineering, University of California, Riverside (10/2019 – 06/2021)
17. Tiffany Chantler, Undergraduate Researcher, CNAS Summer Bridge to Research Program, Environmental Sciences, University of California, Riverside (07/2019 – 08/2019)
18. Kim Ngo, Undergraduate Researcher, Chemistry, University of California, Riverside (01/2019 – 06/2019)
19. Emmy Rodriguez, Undergraduate Researcher, Environmental Sciences, University of California, Riverside (04/2019 – 06/2019)
20. Sharon Zhao, Undergraduate Researcher, Microbiology, University of California, Riverside (04/2019 – 06/2019)
21. Haad Arif, Undergraduate Researcher, Biology, University of California, Riverside (04/2019 – 06/2019)
22. Bharat Rai, Undergraduate Researcher, Biology, University of California, Riverside (01/2019-03/2019)
23. Seong (Joseph) Rhee, Undergraduate Researcher, Chemistry, University of California, Riverside (04/2018 – 12/2018)
24. Cody Cullen, Undergraduate Researcher, Chemical Engineering Major (03/2017- 06/2018)
25. Jazmin Carlos, Undergraduate Researcher, Environmental Sciences, University of California, Riverside (04/2018 – 06/2018)
26. Stacy Chen, Undergraduate Researcher, Environmental Sciences, University of California, Riverside (01/2018 – 03/2018)
27. Amy Patel, Undergraduate Student Volunteer from UCLA (07/2017-09/2017)
28. Kyle Cheng, Undergraduate Research, Biology, University of California, Riverside (04/2017 – 06/2017)
29. Katy Truong, Undergraduate Research, Environmental Sciences, University of California, Riverside (04/2017 – 06/2017)
30. Manat Kamboj, Undergraduate Research, Environmental Sciences, University of California, Riverside (04/2017 – 06/2017)
31. Leena Shah, Undergraduate Research, Department of Chemistry, University of Michigan (2016)
32. Amanda Kramer, BSPH Honor Thesis, Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill (2014-2015)
33. Tashana Detwiler, Undergraduate Research, Department of Chemistry, University of North Carolina at Chapel Hill (2014-2015)
34. Kevin Chu, BSPH Honor Thesis, Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill (2013-2014)
35. Caroline Coulter, Undergraduate Research, Department of Chemistry, University of North Carolina at Chapel Hill (2011-2012)

Research Support

Current Research Support

Environmental Protection Agency (EPA) 10/01/2024-9/30/2029
$3,180,000 (Total)
"Scalable Catalytic and Assisting Technologies for Efficient Hydrofluorocarbon Destruction"
Role: Co-PI

National Science Foundation (NSF) 4/1/2022-3/31/2026
Atmospheric Chemistry (AGS) $667,306 (Total)
"Atmospheric chemistry of methylated selenium compounds and physicochemical properties of the resulting aerosols"
Role: Co-PI

USDA National Institute of Food and Agriculture (NIFA) 10/1/2024-9/30/2029
UCR-AES Hatch Project ~$90,000 (Total)
"Characterization and remediation of per- and polyfluoroalkyl substances (PFAS) in contaminated environmental matrices"
Role: PI

Completed Research Support

University of California Office of the President (UCOP) 07/01/2022-06/30/2025
Tobacco-Related Disease Research Program (TRDRP) $624,050 (Total)
"Differential Characteristics of Active and Passive Vaping Aerosols"
Role: PI

USDA National Institute of Food and Agriculture (NIFA) 7/14/2020-9/30/2024
UCR-AES Hatch Project $90,715 (Total)
"Health effects of particulate matter derived from atmospheric oxidation of organoselenium compounds"
Role: PI

National Science Foundation (NSF) 7/1/2020-6/30/2024
Atmospheric Chemistry (AGS) $699,288 (Total)
"Formation and evolution of atmospheric brown carbon from nitrate radical initiated oxidation of heterocyclic volatile organic compounds"
Role: Lead PI

University of California, Riverside 7/1/2023-6/30/2024
OASIS Internal Funding Award $25,000 (Total)
"Improving thermal treatment technologies for the sustainable remediation of per- and polyfluoroalkyl substances (PFAS)-contaminated waste and environmental matrices"
Role: PI

Department of Defense (DoD) 6/15/2021-6/14/2024
Strategic Environmental Research and Development Program (SERDP) $250,000 (Total)
"Determination of thermal degradation products and residuals of per- and polyfluoroalkyl substances laden sorbent materials in gas and condensed phases"
Role: Lead PI

University of California, Riverside 7/1/2020-6/30/2022
Regents Faculty Development Award $6,000 (Total)
"Role of vaping liquid ingredients in disruption of lung lipid homeostasis"
Role: PI

Hellman Fellows Fund 7/1/2019-6/30/2021
UCR Hellman Fellowship $30,000 (Total)
"Formation and impacts of atmospheric brown carbon aerosols"
Role: PI

University of California, Riverside 7/1/2018-06/30/2019
Regents Faculty Fellowship $4,000 (Total)
"Mechanistic insights into traffic-related air pollution induced metabolic health effects: Roles of noncoding RNAs in susceptibility"
Role: PI

University of California, Riverside 7/1/2018-12/31/2018
Collaborative Seed Grant $10,000 (Total)
"Brown carbon formation from nighttime chemistry of heterocyclic compounds"
Role: Lead PI

University of Michigan 1/4/2016-3/31/2016
Michigan Lifestage Environmental Exposures and Disease Center (M-LEEaD) $10,000 (Total)
"Epigenetic modifications and altered gene expression induced by source specific air borne fine particles in human lung cells"
Role: Co-I

Professional Service

Reviewer for Scientific Journals
Environmental Chemistry, Environmental Science & Technology, RSC Advances, Atmosphere, Atmospheric Research, Science of the Total Environment, Chemosphere, Atmospheric Environment, Environmental Pollution, International Journal of Environmental Research and Public Health, Journal of Geophysical Research–Atmospheres, Journal of Environmental Sciences, Toxicological Sciences, Atmospheric Chemistry and Physics, Environmental Science & Technology Letters, ACS Earth & Space Chemistry, PLOS One, Environments, Chemical Research in Toxicology, Journal of Physical Chemistry A, Communications Chemistry.

Reviewer for Grant Proposals
The Research Council of Norway, National Science Foundation (NSF), The PRESTIGE Postdoc

Programme, National Oceanic and Atmospheric Administration, Canada Research Coordinating Committee-New Frontiers in Research Fund, Swiss National Science Foundation, French National Research Agency (ANR) AAPG, Health Research Board (Ireland), Congressionally Directed Medical Research Programs (CDMRP).

Conference Session Chair
American Association for Aerosol Research (AAAR) Virtual Annual Meeting, **2020**. 15HA: Health Effects: Oxygenated Organic Aerosols (Track 3)
American Association for Aerosol Research (AAAR) Annual Meeting, **2024**. 8 CA: Carbonaceous Aerosols I: Aerosol Chemistry, Methods, and Wildfires.

Conference Working Group
American Association for Aerosol Research (AAAR) Health Related Aerosols Working Group: Vice Chair (2024-2025), Chair (2025-2026)

Editor for Scientific Journals
Environmental Pollution (2023-present)

University Level
Undergraduate Academic Integrity Committee (AIC), Academic Senate, University of California, Riverside (2023-present)
Reviewer for Fulbright English Teaching Assistant Award (2022)
Reviewer for Goldwater Scholarship (2020)
Search committee for EH&S Research Safety Specialist/PPE Coordinator (2019-2020)
Reviewer for the Undergraduate Education Student Minigrant Program (2017, 2018)
Faculty Search Committee: Cluster Hire in Multiphase Atmospheric Chemical Transformations, University of California, Riverside (2017)

College Level
CNAS Space Committee: member (2020-2021, 2022-2023)
Environmental Toxicology Graduate Program, Graduate Advisor for Admissions (2022-2024)
CNAS Life Sciences Teaching Assistant Allocation Committee (TAAC): representative for the Environmental Toxicology Graduate Program (2021-present)
Environmental Toxicology Graduate Program, Curriculum and Affairs Committee**:** co-chair (2022-2024)
Environmental Toxicology Graduate Program, Preliminary Exam Committee: member (2017-2020, 2024, 2025), chair (2021-2023)
Environmental Toxicology Graduate Program, Annual Symposium Organization Committee: chair (2019-2021, 2025)

Department Level
Faculty Search Committee for Assistant Professor in Environmental Health: chair (2022-2023)
Undergraduate Education Committee: member (2020-2021, 2022-2024), chair (2021-2022)
Field Director: Atmospheric Sciences (2022-2024)
Graduate Education Committee: member (2022-2024)
Scholarships and Awards Committee: member (2021-2022)
Safety Space and Equipment Committee: member (2017-2018), chair (2019-2021)
Seminar Committee: chair (2018-2019)

Budget Committee: member (2017-2018), chair (2023-2024)
Vice Chair (2024-present)

Educational Outreach

Outreach presentation at El Modena High School on atmospheric aerosols and STEM pathways (6/5/2023)
Outreach presentations at Rancho Verde High School and Citrus Hill High School on optical properties of atmospheric aerosols (5/18/2022 and 5/20/2022)
Outreach presentations at Colton High School on health effects of vaping (2/8/2020 and 5/15/2023)
Scientific advisor for the musical "Princess Ten Ten and the Dark Skies" – an outreach project in collaboration with UCR CHASS faculty to promote awareness of air pollution (2017-2018)