Hongwan Li, Ph.D., she/her

Assistant Professor
Department of Occupational and Environmental Health
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RESEARCH INTERESTS

Indoor Air Quality; Emerging Pathogens and Pollutants; Public Health; Interdisciplinary Education

EDUCATION

Ph.D.	Civil Engineering	The University of Texas at Austin (UT Austin)	2019
	Dissertation: Rapid characterization of emission parameters of semi-volatile organic compounds (SVOCs) for building materials and consumer products		
M.S.	Environmental Engineering	Missouri University of Science and Technology	2014
	Thesis: Adsorption and desorption capacity of methamphetamine in gypsum drywall		
B.S.	Mechanical Engineering	University of Science and Technology Beijing, China	2012

PROFESSIONAL POSITIONS

Assistant Professor	University of Oklahoma – Health Sciences Center Department of Occupational & Environmental Health	September 2022-present
Postdoctoral Researcher/Program Coordinator	Michigan State University (MSU) Department of Biosystems & Agricultural Engineering	July 2021-August 2022
Postdoctoral Researcher	University of Florida Department of Environmental Engineering Sciences	2020-2021
Predoctoral Trainee	Environmental Protection Agency (U.S. EPA) Center for Environmental Measurement and Modeling	2018-2020
Graduate Research Assistant	UT Austin Department of Civil, Architectural and Environmental Engineering	2015-2018

TEACHING and MENTORING

Assistant Instructor	UT Austin	2017-2018

Building Environmental Systems

Building Energy Management Systems

Teaching Assistant	Missouri S&T	2012-2014
Fluid Dynamics, Statics, Fundamental Chemical Principles in Environmental Engineering		
Mentor		2020-2021
Jessica Boyette (currently an undergraduate student at UF)	University of Florida	
Jiang Xiao (currently a graduate student at Duke University)	UT Austin	2015-2016

CERTIFICATE

Engineering Education Graduate Certificate (UT Austin)

AWARDS AND HONORS

Fellowship	Agency	Funds	Dates
Travel Award	International Society of Indoor Air Quality and Climate (ISIAQ) Conference (2018)	$1,500	2018
Community ENgaged Texas Research ALliance (CENTRAL) in Residence Program	UT Austin	$10,000	2018
Graduate Student Grant-In-Aid	ASHARE	$10,000	2016-2017

Scholarship	Institution	Dates
Graduate Research Student Scholarship	UT Austin	2015-2018
Graduate Teaching Scholarship	Missouri S&T	2012-2014
Outstanding Undergraduate Student Scholarship	University of Science and Technology Beijing	2009-2012
Freshman Scholarship	University of Science and Technology Beijing	2008-2009

WORKSHOP ORGANIZATION

Workshop	Role	Dates
Quantitative Microbial Risk Assessment Interdisciplinary Vehicle: Institute Faculty Workshop	Project Coordinator, Institute Co-evaluator, and curriculum co-developer	July 2021-present

Quantitative Microbial Risk Assessment Africa Workshop	Co-coordinator and Institute Co-evaluator	October, 2021

PROFESSIONAL ACTIVITIES

Membership in Professional Societies

The Society for Risk Analysis	2021-Current
The American Association for Aerosol Research (AAAR)	2020-Current
American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHARE)	2015-Current
International Society of Indoor Air Quality and Climate	2015-Current

Peer Reviewer

Built and Environment

Environmental Science & Technology

Indoor Air

Science of the Total Environment

Journal of Exposure Science and Environment Epidemiology

Aerosol and Air Quality Research

INVITED TALKS

1. Hongwan Li, No SARS-CoV-2 detected in environmental samples collected in a fitness center that reopened following CDC guidelines, University of Florida, February 2021
2. Hongwan Li, Rapid Characterization of Emission Parameters of Semi-volatile Organic Compounds for Building Materials and Consumer Products, University of Florida, October 2020

PROPOSAL CONTRIBUTIONS

1. Assessing virus infectivity by exposing detector cells directly to respiratory virus aerosols, NIH, 2021
2. Co-PI, Using machine learning algorithms to model the relationships between long-term and short-term exposure to multiple air pollutants on COVID-19 mortality, UF, 2020
3. Investigations of occupational $PM_{2.5}$ exposure and respiratory infection risk in agricultural community, NIOSH, 2020

PUBLICATIONS

Papers in Referred Journals

Published or Accepted

1. Yin Ye, Beilei Fan, Zemin Qin, Xin Tang, Yanyue Feng, Miao Lv, Shiyu Miao, **Hongwan Li**, Yanlong Chen, Fan Chen, Yuheng Wang (2022), "Electrochemical removal and recovery of uranium: Effects of operation conditions, mechanisms, and implications", JOURNAL OF HAZARDOUS MATERIALS, Volume 432, 2022, 128723. https://doi.org/10.1016/j.jhazmat.2022.128723
2. Jianlin Ren, Junjie He, Xiangfei Kong, **Hongwan Li** (2022), "Robustness of ventilation systems in the control of walking-induced indoor fluctuations: Method development and case study", BUILDING SIMULATION, In Press, https://doi.org/10.1007/s12273-022-0888-x
3. **Hongwan Li**, Sripriya Nannu Shankar, Chiran T. Witanachchi, John A. Lednicky, Julia C. Loeb, Md. Mahbubul Alam, Z. Hugh Fan, Jessica A. Boyette, Arantzazu Eiguren-Fernandez, and Chang-Yu Wu (2022), "Environmental Surveillance for SARS-CoV-2 in Two Restaurants from a Mid-scale City that Followed U.S. CDC Reopening Guidance", AEROSOL AND AIR QUALITY RESEARCH, 2022 Jan; 22(1): 210304. https://doi.org/10.4209/aaqr.210304
4. Jianlin Ren, Junjie He, Xiangfei Kong, Wei Xu, Yiting Kang, Zhen Yu, **Hongwan Li** (2022), "A field study of CO_2 and particulate matter characteristics during the transition season in the subway system in Tianjin, China", ENERGY AND BUILDINGS, Volume 254. https://doi.org/10.1016/j.enbuild.2021.111620
5. **Hongwan Li**, Sripriya N. Shankar, Chiran T. Witanachchi, John A. Lednicky, Julia C. Loeb, Md. Mahbubul Alam, Z. Hugh Fan, Karim Mohamed, Arantzazu Eiguren-Fernandez, and Chang-Yu Wu (2021), "Environmental surveillance and transmission risk assessments for SARS-CoV-2 in a fitness center", AEROSOL AND AIR QUALITY RESEARCH, Volume 21, Issue 11. https://doi.org/10.4209/aaqr.210106
6. Yaoxing Wu, Zidong Song, John C. Little, Min Zhong, **Hongwan Li**, and Ying Xu (2021), "An integrated exposure and pharmacokinetic modeling framework for assessing population-scale risks of phthalates and their substitutes", ENVIRONMENTAL INTERNATIONAL, 2021, Volume 156. https://doi.org/10.1016/j.envint.2021.106748
7. Chenyang Bi, Xinke Wang, **Hongwan Li**, Xiaofeng Li, and Ying Xu (2021), "Direct transfer of phthalate and alternative plasticizers from indoor source products to dust: laboratory measurements and predictive modeling", ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 2021, Volume 55, 1. https://doi.org/10.1021/acs.est.0c05131
8. **Hongwan Li**, Chenyang Bi, Xiaofeng Li, and Ying Xu (2020), "A needle trap device method for sampling and analysis of semi-volatile organic compounds in air", CHEMOSPHERE, Volume, 250, 126284. https://doi.org/10.1016/j.chemosphere.2020.126284
9. Chenyang Bi, Juan P. Maestre, **Hongwan Li**, Ge Zhang, Raheleh Givehchi, Alireze Mahdavi, Kerry A. Kinney, Jefferey Siegel, Sharon D. Horner, and Ying Xu (2018), "Phthalates and organophosphates in settled dust and HVAC filter dust of U.S. low-income homes: Association with season, building characteristics, and childhood asthma". ENVIRONMENTAL INTERNATIONAL, Volume 121, Pages 916–930. https://doi.org/10.1016/j.envint.2018.09.013
10. Glenn Morrison, **Hongwan Li**, Santosh Mishra, Melissa Buechlein (2015), "Airborne phthalate partitioning to cotton clothing". ATMOSPHERIC ENVIRONMENT, Volume 115, Pages 149-152. https://doi.org/10.1016/j.atmosenv.2015.05.051

Under Revision or Review

11. **Hongwan Li**, Sripriya N. Shankar, Chiran T. Witanachchi, John A. Lednicky, Julia C. Loeb, Md. Mahbubul Alam, Z. Hugh Fan, Michael Lauzardo, Karim Mohamed, Arantzazu Eiguren-Fernandez, and Chang-Yu Wu, "Environmental surveillance for SARS-CoV-2 from September 2020-February 2021 in a university campus that followed CDC reopening guidance", Under Review by JOURNAL OF AMERICAN COLLEGE HEALTH.

Conference Proceedings

1. **Hongwan Li**, Chenyang Bi, Neil Crain, Atila Novoselac, Kinney Kerry, Richard Corsi, and Ying Xu, "Phthalate, organophosphates, polybrominated diphenyl ethers, pesticides, and their alternatives in indoor air and dust in U.S. high school". Proceedings of the 15th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ), Philadelphia, PA, USA, 2018.
2. **Hongwan Li**, Chenyang Bi, and Ying Xu, "A novel rapid method to characterize SVOC emissions from building materials and consumer products". Proceedings of the 15th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ), Philadelphia, PA, USA, 2018.
3. Chenyang Bi, Brandon Boor, **Hongwan Li**, and Ying Xu, "Screen-level estimation of crawling induced exposure to particle-phase phthalates". The proceedings of the 15th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ), Philadelphia, PA, USA, 2018.
4. **Hongwan Li**, Chenyang Bi, and Ying Xu, "A novel rapid method to determine emission and sorption parameters for semi-volatile organic compounds and its application in prediction of infants' exposure in sleep microenvirnments". Healthy Building, Europe, 2017.
5. **Hongwan Li**, Chenyang Bi, Neil E. Crain, Atila Novoselac, Kerry Kinney, Richard L. Corsi, and Ying Xu, "Phthalates, organophosphates, polybrominated diphenyl ethers, pesticides, and their alternatives in indoor air and dust in U.S. Schools". Proceedings of the 14th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ), Ghent, Belgium, 2016.
6. **Hongwan Li** and Glenn Morrison, "Adsorption capacity of methamphetamine in gypsum drywall". Proceedings of the 13th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ), Hong Kong, 2014.

CONFERENCE PRESENTATIONS - 1-represents presenter

1. **Hongwan Li**[1], Mark Weir, Julie Libarkin, and Jade Mitchell, "Development and evaluation of an interdisciplinary quantitative microbial risk assessment intensive short course". *Society for Risk Analysis (SRA)*, 2021.
2. **Hongwan Li**[1], Sripriya N. Shankar, Chiran T. Witanachchi, John A. Lednicky, Julia C. Loeb, Md. Mahbubul Alam, Z. Hugh Fan, Karim Mohamed, Arantzazu Eiguren-Fernandez, and Chang-Yu Wu , "No SARS-CoV-2 detected in environmental samples collected at a fitness center that following CDC guidelines", *The American Association for Aerosol Research (AAAR)*, 2021.
3. **Hongwan Li**[1], Sripriya N. Shankar, Chiran T. Witanachchi, John A. Lednicky, Julia C. Loeb, Md. Mahbubul Alam, Z. Hugh Fan, Michael Lauzardo, Karim Mohamed, Arantzazu Eiguren-Fernandez, and Chang-Yu Wu, "Environmental surveillance for SARS-CoV-2 from September 2020-February 2021 on a university

campus that followed CDC reopening guidance", *The American Association for Aerosol Research (AAAR)*, 2021.

4. **Hongwan Li**[1], Chenyang Bi, Atila Novoselac, Kerry Kinney, Richard L. Corsi, and Ying Xu, "Phthalates, organophosphates, polybrominated diphenyl ethers (PBDEs) and pesticides in indoor air and dust in U.S. high schools". *Indoor Air*, 2018, Philadelphia.
5. **Hongwan Li**[1], Chenyang Bi, and Ying Xu, "A novel rapid method to characterize SVOC emissions from building materials and consumer products". *Indoor Air*, 2018, Philadelphia.
6. **Hongwan Li**, Chenyang Bi, Neil E. Crain, Atila Novoselac, Kerry Kinney, Richard L. Corsi, and Ying Xu[1], "Semi-volatile organic compounds in indoor air and dust in U.S. high schools", *Healthy Building*, 2017, Portland.
7. **Hongwan Li**, Chenyang Bi, and Ying Xu[1], "A novel rapid method to determine emission parameters for semi-volatile organic compounds and its application in prediction of infants' exposure in sleep microenvirnments". *Health Building*, 2017.
8. **Hongwan Li**[1], Chenyang Bi, Neil E. Crain, Atila Novoselac, Kerry Kinney, Richard L. Corsi, and Ying Xu, "Phthalates, organophosphates, polybrominated diphenyl ethers, pesticides, and their alternatives in indoor air and dust in U.S. Schools". *Indoor Air*, 2016, Ghent.
9. Yirui Liang, **Hongwan Li**[1], and Ying Xu, "emissions of phthalates and phthalate alternatives from vinyl flooring and crib mattress covers: the influence of temperature". *Indoor Air*, 2016, Ghent.

SERVICE/OUTREACH

Institution	**Role**	**Duration**
MSU	Participant in Diversity Research Network	October 2021-present
MSU	Participant in STEM Ambassador Program	October 2021-present
University of Florida	Panelist of "Surviving Your PhD" for Graduate Society of Women Engineers	October 2021
The Florida Federation of Garden Clubs	Leader for an outreach to High School Saving the Earth's Environmental through Knowledge Conference (S.E.E.K)	June-July 2021
UT Austin	Co-coordinator and instructor for a high school summer camp focusing on indoor air and building ventilation	July-August 2017
Missouri S&T	Volunteer for Earth Day and Celebration of Nations	2012-2014
University of Science and Technology Beijing	Coordinator for a public service project focusing on high school students survived in 2008 Great Sichuan Earthquake	2008-2010