

LUPITA D. MONTOYA

AFFILIATION: Civil, Environmental & Architectural Engineering
University of Colorado Boulder
ECOT 441, UCB 428, Boulder, CO 80309-0428

PROFESSIONAL PREPARATION

California State University, Northridge, CA	Engineering (Mechanics)	B.S., 1989, <i>Cum Laude</i>
Stanford University, Stanford, CA	Mechanical Engineering	M.S., 1991
Stanford University, Stanford, CA	Environmental Engineering	Ph.D., 1999
State University of New York, Albany, NY	Environmental Health	Postdoc, 1998-2000
Harvard School of Public Health, Boston, MA	Environmental Health	Postdoc, 2000-2003

APPOINTMENTS

2018 – present	<i>Research Associate</i> , Civil, Environmental and Architectural Engineering Dept., University of Colorado Boulder (CU).
2010 – 2018	<i>Assistant Professor</i> , Civil, Environmental and Architectural Engineering Dept., University of Colorado Boulder.
2010 – present	<i>Affiliated Faculty</i> , Environmental and Occupational Health Department, Colorado School of Public Health.
2008 – 2009	<i>Assistant Professor</i> , Mechanical, Aerospace & Nuclear Engineering Department, Rensselaer Polytechnic Institute (RPI).
2007 – 2012	<i>Affiliated Faculty</i> , Center for Architecture Science & Ecology (CASE).
2003 – 2007	<i>Assistant Professor</i> , Civil and Environmental Engineering Department, Rensselaer Polytechnic Institute.
2000 – 2003	<i>Research Fellow</i> . Environmental Science & Engineering Program and Physiology Program, Harvard School of Public Health (HSPH).
1998 – 2000	<i>Research Fellow</i> , Environmental Health & Toxicology, School of Public Health, State University of New York, Albany.

PRODUCTS (most related)

1. Lamplugh A., Harries M., Nguyen A., Montoya L.D. (2019). "VOC Emissions from Nail Salon Products and Effective Removal Using Affordable Adsorbents and Synthetic Jets", under revision, *Building and Environment*.
2. Lamplugh A., Harries M., Xiang F., Trinh J., Hecobian A., Montoya L.D. (2019). "VOC Exposure and Occupational Health Outcomes in Colorado Nail Salons", *Environmental Pollution*, 249: 518-526.
3. Montoya L.D., Mauney D., Srubar W. (2017). "Investigation of efficient air pollutant removal using active flow control", *Building and Environment*, 122:134-144.
4. Abarr M., Mauney D., Hertzberg J. and Montoya L.D. (2017). "Characterization of a Commercial Synthetic Jet Actuator for Air Quality Applications", *Journal of Engineering Fluids*, 139(7):071103-071103-7. Doi:10.1115/1.4035948
5. McQuillan B., Hertzberg J. and Montoya L.D. (2014). "Flow Visualization Study of Synthetic Flow Control in the Indoor Environment", *Building and Environment*, 73:239-248.
6. Aydogan A. and Montoya L.D. (2011). "Formaldehyde Removal by Common Indoor Plant Species and Various Growing Media", *Atmospheric Environment* 45:2675-2682.

7. Montoya L.D., Jackson J.L., and Amitay M. (2010). "Control of Aerosol Dispersion and Removal in a Room Using Synthetic Jet Actuators", *Building and Environment*, 45: 165–175.

OTHER SIGNIFICANT PRODUCTS

8. Aguilar-Dodier L.C., Castillo J.E., Quintana P.J.E., Montoya L.D., Molina L.T., Zavala M., Almanza-Veloz M., Rodríguez-Ventura J.G., (2019). "Spatial and temporal evaluation of H₂S, SO₂, and NH₃ concentrations near Cerro Prieto geothermal power plant in Mexico", under revision, *Atmospheric Pollution Research*.
9. Montoya L.D., Gadde H.K., Champion W.M., Li N., Hubler M.H. (2019). "PM_{2.5} generated during rapid failure of fiber-reinforced concrete induces TNF-alpha response in macrophages", *Science of the Total Environment*, 690: 209-216.
10. Jorquera H., Barraza F., Heyer J., Valdivia G., Schiaccappase L.N., Montoya L.D. (2018). "Indoor PM_{2.5} in an urban zone with heavy wood smoke pollution: the case of Temuco, Chile", *Environmental Pollution*, 236: 477-487. Doi: 10.1016/j.envpol.2018.01.085
11. Li N., Champion W.M., Imam J., Sidhu D., Salazar J.R., Majestic B.J., Montoya L.D. (2018). "Evaluation of cellular effects of fine particulate matter from combustion of solid fuels used for indoor heating on the Navajo Nation using a stratified oxidative stress response model", *Atmospheric Environment*, 182:87-96.
12. Champion W.M., Connors L., Montoya L.D. (2017). "Emission factors of fine particulate matter, organic and elemental carbon, carbon monoxide, and carbon dioxide for four solid fuels commonly used in residential heating by the Navajo Nation", *Journal of the Air and Waste Management Association*, 67(9): 1020-1035.
13. Heichelheim E.W., Montoya L.D., Hubler H. (2017). "Aerosol Generation in Compressive Concrete Fragmentation", *Construction and Building Materials*, 155: 1039-1049.
14. Champion W.M., Charley P.H., Stewart K., Klein B., Solomon P.A., Montoya L.D. (2017). "Perception, culture, and science: A framework to identify in-home heating options to improve indoor air quality in the Navajo Nation", *Science of the Total Environment*, 580:297-306.

SYNERGISTIC ACTIVITIES

Organizer, workshop on "Truth and Reconciliation: Building the Path for Inclusive Communication in STEM", *#InclusiveSciCom Symposium*, Univ. of Rhode Island, September 2019.

Co-organizer, workshop on "Environmental Engineering for the 21st Century: Increasing Diversity and Community Participation to Achieve Environmental and Social Justice", *Association of Environmental Engineering and Science Professors*, Tempe AZ, May 14, 2019.

Co-organizer, "Air Quality in Megacities: from Sources to Control" Special Symposium, *International Aerosols Conference*, St. Louis MO, September 2-7, 2018.

Developer, undergraduate courses using the process of *Engineering Design* to solve technical as well as societal problems. Courses taught at the freshman and sophomore levels to engineering and non-engineering students.

Promoter, Diversity in STEM fields as featured Latina engineer in 3 book projects and regular presentations to K-college and faculty audiences.

International collaborator, with researchers in Chile, Colombia, Peru, and Mexico to promote and perform air quality studies in Latin America, especially as they pertain to poor communities.

Reviewer, for about a dozen academic and technical journals and for multiple federal agencies.