

Curriculum Vitae

Name: Asif Qureshi

Address: 401, Academic Block B, Indian Institute of Technology (IIT) Hyderabad, Kandi, TS 502285, India.

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Employment

- IIT Hyderabad, *Associate Professor*
Department of Civil Engineering Jun 2018–present
Department of Climate Change (Adjunct) Feb 2022–present
- IIT Hyderabad, *Assistant Professor, Department of Civil Engineering* Jun 2013–Jun 2018
- Harvard University, *Postdoctoral Research Fellow, Department of Environmental Health* Jun 2011–Jun 2013
- ETH Zürich, *Scientific Associate, Safety & Environmental Technology Group* Nov 2006–Nov 2007

Education

- ETH Zürich, *Doctor of Science, Environmental Science* Nov 2007–May 2011
- University of British Columbia, *Master of Applied Science, Environmental Engineering* Aug 2003–May 2006
- IIT Kanpur, *Bachelor of Technology, Civil Engineering* Jul 1999–May 2003

Professional Contributions and Service

- *Editorial Board, PLOS One*
- *Editorial Board, PLOS Climate*
- *Represented India officially at the UN Asia-Pacific Regional Consultation Meeting, Minamata Convention COP-3, United Nations Conference Center, Bangkok. 07-08 October 2019.*
- *Invited expert from India, UNEP/AMAP Global Mercury Assessment meeting/workshop, Copenhagen, Denmark, November 2016.*
- *Scientific Steering Committee member, 12th and 15th International Conference on Mercury as a Global Pollutant, years 2015 & 2022.*

Grants

- Principal Investigator, GIS/GPS mapping of Waqf properties. *Telangana State Waqf Board.* 2022–23
- Principal Investigator, Assessing Ecological Impacts of Industrialization and Agriculture: Spatio-Temporal Levels of Mercury Accumulation in the Long-Lived Sarus Crane, *Council for Scientific & Industrial Research.* 2021–23
- Principal Investigator, Programmatic approach for Minamata Convention. *Ministry of Environment, Forests & Climate Change.* 2019–22
- Joint-Principal Investigator, Coal-based energy generation in India: Managing local and global environmental and human health impacts. *Harvard Global Institute.* 2018–20

- Principal Investigator, Environmental Monitoring of Mercury Around Five New Coal-Based Thermal Power Plants. *Public Sector Unit*. 2018–19
- Principal Investigator, Estimating mercury levels & exposure for pregnant women & new Born Babies in selected South Indian cities. *Ministry of Environment, Forests & Climate Change*. 2017–20
- Principal Investigator, Mercury pollution in India: regional and global implications. *Department of Science & Technology (INSPIRE Faculty Award)*. 2013–19
- National Carbonaceous Aerosol Program (NCAP). *Ministry of Environment, Forests & Climate Change* (Associate Member). 2017–22
- Understanding mercury reduction in oceans: influence of environmental factors & impacts on global mercury cycle. *SERB-NPDF* (Post-doc Mentor). 2017–19
- 35th Indian Antarctic Expedition member. Measurements of mercury in Schirmacher oasis. 2015–16
- 10th Indian Expedition to Southern Oceans (post-doc participated in the expedition). 2017–18

Publications

(since 2020, Qureshi appearing as last or first author = PI author)

- 31) Joy, A., Qureshi, A. (2022) Reducing mercury emissions from coal-fired power plants in India: possibilities and challenges. *Ambio*, doi: 0.1007/s13280-022-01773-5.
- 30) Qureshi, A. (2022) Mercury in the environment around industrially impacted Locations in India: a mini-review. *Bulletin of Environmental Contamination & Toxicology*, doi: 10.1007/s00128-022-03548-w.
- 29) Maheshwarkar, P., Ralhan, A., Raman, R.S., Tibrewal, K., Venkataraman, C., Dhandapani, A., Kumar, R.N., Mukherjee, S., Chatterje, A., Rabha, S., Saikia, B.K., Bhardwaj, A., Chaudhary, P., Sinha, B., Lokhande, P., Phuleria, H.C, Roy, S., Imran, M., Habib, G., Hashmi, M.A., Qureshi, A., Qadri, A.M., Gupta, T., Lian, Y., Pandithurai, G., Prasad, L., Murthy, S., Deswal, M., Laura, J.S., Chhangani, A.K., Najjar, T.A., Jehangir15, A. (2022) Understanding the influence of meteorology and emission sources on PM2.5 mass concentrations across India: first results from the COALESCE network. *Journal of Geophysical Research: Atmospheres*, doi: 10.1029/2021JD035663.
- 28) Majumdar, A. Qureshi, A. (2022) Thinking about infertility from a mixed methods perspective: the need to look at toxicity in rural India. *Sexual and Reproductive Health Matters*, doi: 10.1080/26410397.2021.1999565.
- 27) Shende, P., Qureshi, A. (2022) Burden of diseases in fifty-three urban agglomerations of India due to particulate matter (PM2.5) exposure. *Environmental Engineering Research*, 22(3), 210042, doi: 10.4491/eer.2021.042.
- 26) Bhatia, M., Specht, A., Ramya, V., Suleiman, D., Konda, M., Balcom, P., Sunderland, E.M., Qureshi, A. (2021) Portable XRF as a rapid determination tool to detect ppm levels of Ni, Zn, As, Se and Pb in human toenails: A South India case study. *Environmental Science & Technology*, 55(19), 13113-13121.
- 25) Unagar, A., Hashmi, A., Tiwari, A.K., Desai, B., Jawak, S., Urba, A., Qureshi, A. (2021) Coast of Antarctica as the source of atmospheric mercury during austral summer. *Atmospheric Pollution Research*, 12(12), doi: 10.1016/j.apr.2021.101226.

- 24) Pramanik, S., Shalini, M., Qureshi, A. (2021) Mercury in soil around a 2600 MW coal-fired super thermal power plant in India and human health risk assessment. *Journal of Hazardous, Toxic, and Radioactive Waste*, doi: 10.1061/(ASCE)HZ.2153-5515.0000613.
- 23) Pramanik, S., Kumar, M., Qureshi, A. (2021) Mercury in skin-care products in India and consumer exposure risks. *Regulatory Toxicology and Pharmacology*, 121, 104870, doi: 10.1016/j.yrtph.2021.104870.
- 22) Joy, A., Qureshi, A. (2020)* Mercury in dental amalgam, online retail, and the Minamata Convention on Mercury. *Environmental Science & Technology*, 54(22), 14139–14142, doi: 10.1021/acs.est.0c01248.
(*Feature)
- 21) Subhavana, K.L., Keerthana R.T., Qureshi, A. (2020) Mercury in marine, freshwater and aquaculture species from South India and human exposure risk assessment. *Exposure and Health*, doi: 10.1007/s12403-020-00352-x.
- 20) Akila, M., Earappa, R., Qureshi, A. (2020) Microbes and endotoxins in indoor and outdoor air of rural households of southern India. *Building and Environment*, doi: 10.1016/j.buildenv.2020.106970.
- 19) Kakarla, A., Qureshi, A., Thatikonda, S., De, S., Jana, S. (2020) RESILIENT: A robust statistical method for estimating multiple VOC sources from limited field measurements. *Heliyon*, <https://doi.org/10.1016/j.heliyon.2020.e05296>.
- 18) Qureshi, A., Subhavana, K.L. (2020) Multimedia mercury cycling in a legacy contaminated tropical montane forest (Kodaikanal, India) and implications for monitoring and assessment of future contaminated regions. *Journal of Hazardous, Toxic, and Radioactive Waste*, doi: 10.1061/(ASCE)HZ.2153 -5515.0000526.
- 17) Keerthana, R.T., Qureshi, A. (2020) Total and methyl mercury in small marine biota caught off the coast of Chennai, India. *Toxicological & Environmental Chemistry*, doi: 10.1080/02772248.2020.1791867.
- 16) Schartup, A.T., Thackray, C.P., Qureshi, A., Dassuncao, C., Gillespie, K., Hanke, A., Sunderland, E.M. (2019) Climate change and overfishing increase neurotoxicant in marine predators. *Nature*, doi: 10.1038/s41586-019-1468-9.
- 15) Subhavana, K.L., Qureshi, A., Roy, A. (2019) Mercury levels in human hair in South India: baseline, artisanal goldsmiths and coal-fired power plants. *Journal of Exposure Science & Environmental Epidemiology*, doi: 10.1038/s41370-018-0107-0.
- 14) Ashok. A., Doriya, K., Rao, J.V., Qureshi, A., Tiwari, A.K., Kumar, D.S. (2019) Microbes producing L-Asparaginase free of Glutaminase and Urease isolated from extreme locations of Antarctic Soil and Moss. *Scientific Reports*, doi: 10.1038/s41598-018-38094-1.
- 13) Subhavana, K.L., Qureshi, A., Chakraborty, P., Tiwari, A.K. (2019) Mercury and POPs in the terrestrial environment of Schirmacher Hills, Antarctica. *Bulletin of Environmental Contamination & Toxicology*, doi: 10.1007/s00128-018-2497-z.
- 12) Kakarla, A., Munagala, V.S.K.R., Qureshi, A., Shashidhar, T., De, S., Ishizaka, T., Fukuda, A., Jana, S. (2019) Comprehensive air quality management system for rapidly growing cities in developing countries. *2019 IEEE Global Humanitarian Technology Conference (GHTC)*, doi: 10.1109/GHTC46095.2019.9033097.

- 11) Schartup, A.T., Qureshi, A., Dassuncao, C., Thackray, C.P., Harding, G., Sunderland, E.M. (2018) A model for methylmercury uptake and trophic transfer by marine plankton. *Environmental Science & Technology*, 52(2), 654-662.
- 10) Kakarla, A., Qureshi, A., Shashidhar, T., De, S., Singh, S.G., Jana, S. (2017) Source localization via aermod-based simulation under mean squared error criterion: Demonstration using field data. *International Geoscience and Remote Sensing Symposium*, doi: 10.1109/IGARSS.2017.8128425, Volume 2017-July, 1 December 2017, Article # 8128425, Pages 6201-6204. (37th Annual IEEE IGARSS symposium).
- 9) Chakraborty, L.B., Qureshi, A., Vadenbo, C., Hellweg, S. (2013) Anthropogenic flows of mercury in India and impacts of emission controls. *Environmental Science & Technology*, 47(15), 8105-8113.
- 8) Qureshi, A., MacLeod, M., Sunderland, E., Hungerbühler, K. (2012) Exchange of elemental mercury between the oceans and the atmosphere. In: G. Liu, Y. Cai, N.J. O'Driscoll (Eds), *Environmental Chemistry and Toxicology of Mercury*, John Wiley & Sons, Inc., NJ, USA, doi: 10.1002/9781118146644.ch12.
- 7) Qureshi, A., MacLeod, M., Hungerbühler, K. (2011) Quantifying uncertainties in the global mass balance of mercury. *Global Biogeochemical Cycles*, 25, GB4012, doi: 10.1029/2011GB004068.
- 6) Qureshi, A., O'Driscoll, N.J., MacLeod, M., Neuhold, Y-M., Hungerbühler, K. (2010) Photoreactions of mercury in surface ocean water: gross reaction kinetics and possible pathways. *Environmental Science & Technology*, 44(2), 644-649.
- 5) Qureshi, A., MacLeod, M., Hungerbühler, K. (2009) Modeling aerosol suspension from soils and oceans as sources of micropollutants to air. *Chemosphere*, 77(4), 495-500.
- 4) Qureshi, A., MacLeod, M., Scheringer, M., Hungerbühler, K. (2009) Mercury cycling and species mass balances in four North American lakes. *Environmental Pollution*, 157(2), 452-462.
- 3) Qureshi, A., Lo, K.V., Liao, P.H. (2008) Microwave treatment and struvite recovery potential of dairy manure. *Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Waste*, 43(4), 350-357.
- 2) Qureshi, A., Lo, K.V., Liao, P.H., Mavinic, D.S. (2008) Real-time treatment of dairy manure: implications of oxidation reduction potential regimes to nutrient management strategies. *Bioresource Technology*, 99(5), 1169-1176.
- 1) Qureshi, A., Lo, K.V., Mavinic, D.S., Liao, P.H., Koch, F.A., Kelly, H.A. (2006) Dairy manure treatment, digestion and nutrient recovery as a phosphate fertilizer. *Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Waste*, 41(7), 1221-1235.

Research Advisor

- Alumni: Three post-docs, two PhDs, five masters, and ten research staff.
- Current: Eight PhDs, one master's, and three research staff.

Recognitions

- INSPIRE Faculty Award, Department of Science & Technology, India 2013–2019

- Water Quality Scholarship, University of British Columbia, Canada 2006
- Environmental Engineering Research Scholarship, University of British Columbia, Canada 2004
- Graduate Entrance Scholarship, University of British Columbia, Canada 2003