

Contact Information

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Research Areas and Interests

Environmental fate of emerging contaminants

Bioremediation

Water Quality

Environmental Forensics

Teaching

FOSC 4050 Forensic Analytical Chemistry
FOSC 4201 Evidence Analysis, Research and Internship
FOSC 2100 Introduction to Forensic Science
CHEM 1211 Principle of Chemistry I
CHEM 1212 Principle of Chemistry II

Professional Experiences

Postdoctoral Scholar	<i>Feb 2020-Aug 21</i>
<i>Air Quality Research Center, University of California, Davis, California</i>	
Postdoctoral Researcher	<i>Jan 2019-Jan 20</i>
<i>Center for Hydrology Contaminants, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins, Colorado</i>	
Visiting scholar	<i>May-Aug 2018</i>
<i>R&D of Agricultural solution of BASF Chemical Company, Germany.</i>	
Research Assistant	<i>Jan 2016-Dec 19</i>
<i>Department of Civil Engineering Texas A&M University, College Station, TX.</i>	
Research Assistant	<i>Feb-Oct 2013</i>
<i>Alfred Wegener Institute for Polar and Marine Research, Germany.</i>	
Research Assistant	<i>Aug 2012-Jan 13</i>
<i>Royal Netherlands Institute for Sea Research, Bremerhaven, Germany.</i>	
Research Assistant	<i>Nov 2010-Jul 12</i>
<i>Institute of Combustion and Power Plant Technology, University of Stuttgart, Germany.</i>	

Publications

- [1] 2022, W Yang, **H Sharifan**, X Ma, Occurrence, Fate, and Treatment of Perfluoroalkyl and Polyfluoroalkyl Substances in the Environment and Engineered Systems. ***Frontiers in Environmental Science***. [10.3389/fenvs.2022.880059](https://doi.org/10.3389/fenvs.2022.880059)
- [2] 2022, R B. Young, N E. Pica, **H Sharifan**,, C. P. Higgins, T. Borch, A.M. McKenna, J. Blotevogel, PFAS Analysis with Ultrahigh Resolution 21T FT-ICR MS: Suspect and Nontargeted Screening with Unparalleled Mass Resolving Power and Accuracy. ***ACS Environmental Science & Technology***. [10.1021/acs.est.1c08143](https://doi.org/10.1021/acs.est.1c08143)
- [3] 2022, A Doria-Manzur, **H Sharifan***, L Tejada-Benitez., Application of zinc oxide nanoparticles to promote remediation of nickel by Sorghum bicolor: metal ecotoxic potency and plant response. *International of Phytoremediation*, [10.1080/15226514.2022.2060934](https://doi.org/10.1080/15226514.2022.2060934)
- [4] 2022, D Sanaeia, M Massoudinejada, M Javed, S Zarandi, **H Sharifan**, M Imran MFC-driven H₂S electro-oxidation based on Fe nanoparticles anchored on carbon aerogel-ZIF-8: A collaborated experimental and DFT study. ***Journal of Material Chemistry C***. [10.1039/D1TC03877J](https://doi.org/10.1039/D1TC03877J)
- [5] 2022, H.Salehi, A. Chehregani Rad, **H. Sharifan**, A.Raza, R,K Varshney, Aerially applied zinc oxide nanoparticle affects reproductive components and seed quality in fully grown bean plants (*Phaseolus vulgaris* L.). ***Frontiers in Plant Science, section Plant Nutrition*** [10.3389/fpls.2021.808141](https://doi.org/10.3389/fpls.2021.808141)
- [6] 2022, A Chahardoli, **H Sharifan**; F Qalekhani, Titanium dioxide nanoparticle promoted protein synthesis and altered the photosynthetic efficiency in *Nigella arvensis*, a dose-dependent response. ***Science of Total Environment***. [10.1016/j.scitotenv.2021.151222](https://doi.org/10.1016/j.scitotenv.2021.151222)
- [7] 2022, **H Sharifan**, A Noori, M Bagheri, j Moore, Postharvest spraying of ZnO nanoparticles enhances shelf life qualities and zinc concentration in tomato fruits. ***Crops & Pasture Science*** [10.1071/CP21191](https://doi.org/10.1071/CP21191)

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Recent Grants

Funding Agency: **National Institute of Health**

Enhancing Career Development of HBCU Biomedical Researchers; grantsmanship and mentoring training

Role: PI | Status: Funded (Award # 5U01GM138434)

Collaborators: Savanah State University

Impacts of metallic oxide nanoparticles on medicinal plants behavior and biological performance

Funding Agency: German Academic Exchange Service (DAAD)-RISE Professional BASF Chemical Company, Ludwigshafen, Germany. Role: PI Status: Funded <i>Characterizing and calibrating of LC-SPE-NMR to analyse the animal and plant metabolites</i>	2018
Funding Agency: National Science Foundation (NSF)-PIRE Role: PI Status: Funded (Award#1545837P) Collaborators: Delft University (Netherlands) and Texas A & M University <i>Sustainable agriculture under risk of a contaminated coastal flood using the nanotechnology</i>	2018
Funding Agency: National Institute of Health (NIH) Travel grant; Role: PI Status: Funded <i>Presentation on 14th International Phytotechnologies Conference, Changsha, China</i>	2018
Funding Agency: National Institute of Health (NIH) Travel grant; Role: PI Status: Funded <i>Presentation on 14th International Phytotechnologies Conference, Montreal, Canada</i>	2017
Funding Agency: National Science Foundation (NSF) Travel grant; Role: PI Status: Funded <i>Presentation on 1st Pan American Congress of Nanotechnology, Guaruja, Brazil</i>	2017
Funding Agency: Internal Grant; Texas Tech University Role: PI Status: Funded <i>Supplemental material for the project of UV filters interaction with the chlorinated water</i>	2016

Awards and Honors

Appreciation Award for outstanding contribution as a reviewer for the Undergraduate research competition Center for the Undergraduate Research, Albany State University	2022
Appreciation Award for outstanding contribution as a reviewer for the Undergraduate research colloquium Center for the Undergraduate Research, Albany State University	2021
Appreciation Award for serving as Judge for Annual Departmental Capstone Event for Undergraduate Students Department of Biological and Agricultural Engineering, Texas A & M University, College Station, Texas.	2019
Peer Review Awards by Publon supported by Web of Science Group Top 1% in the Field Environment and Ecology	2018
Outstanding contribution in Reviewing for the Journal of Science of Total Environment Reviewing 15 articles in the field of environmental science and engineering, ecology and biotechnology	2017

Giving critical reviews for more than three years of volunteer service

Education

University of Texas A&M, College Station, TX *Dec 2019*

Ph.D. in Environmental Chemistry Research,
Department of Biological and Agricultural Engineering, College of Engineering
Thesis: Interaction of plants and soil microbiome with nanoparticles and heavy metals in soil and hydroponics

University of Texas Tech, Lubbock, TX *May 2016*

M.Sc. in Civil and Environmental Engineering Research,
Department of Civil and Environmental Engineering, College of Engineering
Thesis: Environmental fate of UV filters contaminations in different ecosystems

University of Stuttgart, Stuttgart, Germany *April 2013*

M.Sc. in Environmental Process Engineering Research,
Department of Environmental Engineering
Thesis: Solute transfer rate of pharmaceutical and pesticides contaminants through PES membrane

University of Birjand, Iran *Sep 2010*

B.Sc. in Natural Resource Engineering (Environment)
Thesis: Bioaccumulation and distribution of heavy metals in grey mangrove and soil