

FEATURED MEMBERS

1. *My career path?*

I received BENG in Environmental Engineering from the National University of Singapore. While an undergraduate student, I worked with Prof. Renbi Bai on the adsorption of heavy metals using biopolymers (chitosan). That was my early exposure to environmental research. I changed the career path somewhat after graduation, spending three years in the semiconductor industry as a process engineer. The desire of fulfilling my environment engineer dream urged me to go back to graduate school, this time at Lehigh University joining Prof. Wei-xian Zhang's team to work on zero-valent iron material for subsurface remediation. After getting a Ph.D. in 2011, I had a brief stint as a post-doc at Princeton University with Prof. Bruce Koel, before heading south to Texas Tech University (TTU) in Lubbock, TX.

2. *Your current research areas, interests, and projects?*

I am most interested in reactions at the water-solid interface, particularly surface-mediated redox transformation that contributes to contaminant attenuation in the environment. I am also interested in improving or creating new engineering solutions to manage subsurface pollution. Iron, whether in the form of metal, oxides, or sulfides, has been the central thesis of my research, mainly because of their diverse roles as sorbents, catalysts, or electron source for contaminant abatement. I am also broadly interested in colloidal materials in the aquatic environment in general. I have two ongoing projects funded by NSF. They look at contaminant degradation mediated by iron or iron-containing minerals. In these efforts, we apply relevant surface or solid phase analyses with solution chemistry experiments to probe the interaction between these redox-active surfaces and groundwater contaminants.

3. *Courses you normally teach?*

I teach Environmental Chemistry, and labs affiliated with courses of Intro. to Environmental Engineering and Advanced Water Treatment. This spring, I am teaching a graduate-level elective titled "Environmental Interface Chemistry".

4. *My professional activities?*

I am a member of ACS, IWA, and AEESP. I co-edited special issues for Chemosphere and J. Hazardous Materials, and co-organized a symposium at ACS meeting, which I hope to do more in the future.

5. *Can you briefly describe major attractions and cultural environment of your area and/or community?*

Lubbock is known as the buckle of the Bible Belt, hence it has many churches. It is also known for its dust storm (a few minor occurrences in a year and a major one once in every few years), perfectly flat landscape, friendly people, and many many sunny days year-round.

6. *My thoughts on key factors that lead to your career today?*

My advisors and co-advisors played an instrumental role in guiding me to this career. Their open-mindedness and encouraging me to exploring things I am interested have made me believe this career is truly empowering. My industry experience also plays a role – it makes me appreciate the science and engineering trainings I had in school.



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