



FEATURED MEMBERS



Dr. Mei Sun (孙梅)

Assistant Professor

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1. *My career path?*

I received my BS in Environmental Science and Engineering from Tsinghua University in 2007. Then I went to Carnegie Mellon University in Pittsburgh, PA for MS (2008) in Civil and Environmental Engineering and continued with my PhD (2012). My thesis work with Greg Lowry and Kelvin Gregory focused on electrochemical reactions for contaminated sediment remediation and hydraulic fracturing wastewater treatment. In 2013, I joined North Carolina State University in Raleigh, NC as a postdoc, working on sulfide biotransformation in landfills with Mort Barlaz, as well as detection and removal of emerging organic micropollutants from drinking water source with Detlef Knappe. I started my lab in University of North Carolina at Charlotte as an assistant professor in 2016.

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

I am interested in developing solutions for sustainable water treatment/reuse and resolving issues related to the water-energy nexus, using fundamental knowledge and experimental methods in water chemistry, environmental electrochemistry, catalytic chemistry and biogeochemistry. Specific areas of interest include:

- Innovative treatment technologies to remove emerging contaminants from water and wastewater
- Fate, transport, and degradation of contaminants in various environmental matrices
- Contaminated subsurface remediation

My current research projects include detection and removal of per- and polyfluoroalkyl substances, removal of bromide for disinfection byproduct control, and removal of various contaminants from stormwater runoff.

3. *Courses you normally teach?*

Courses I am teaching or have taught in UNC Charlotte include “Environmental Engineering Laboratory”, “Introduction to Environmental Engineering”, “Physical Processes in Environmental Engineering”, “Contaminant Fate, Transport and transformation in the Environment” and “Design Project Lab”. I also taught Chemical Principles of Environmental Engineering during postdoc in NCSU.



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4. *My professional activities?*

I am a member of the American Chemical Society (ACS), American Water Works Association (AWWA), and Association of Environmental Engineering and Science Professors (AEESP). I am serving as a committee member of the Joint Section Research Committee of AWWA.

5. *Major attractions and cultural environment of your area and/or community?*

As the second largest city in the southeastern US and a leading cultural capital, Charlotte, NC is neither too crowd nor too quiet to live in. Charlotteans are proud for the tree canopy (47% of the sky), craft beer (#5 among the cities where craft beer is taking off), southern food (including the NC style BBQ), downtown (but we call it uptown) skyline, mild weather, whitewater rafting, and local farms. Charlotte is four-hour drive to the majestic Great Smoky Mountains to the west, and four-hour drive to the beautiful white sandy beaches along the coast to the east.

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

Care for the well-being of people and the environment, social responsibility as a scientist, curiosity for unknowns, and encourage and support from many good mentors.



Dr. Mei Sun and her research group