

# Xiaopeng Min

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## **RESEARCH INTERESTS**

- Environmental Chemistry
- Environmental Applications and Implications of Nanomaterials
- Drinking Water Supply and Treatment
- Wastewater Treatment and Reclamation

## **EDUCATION**

- **University of Wisconsin-Milwaukee**, United States 2015-present  
**Ph.D. Candidate**, Civil and Environmental Engineering, GPA: 3.98/4.00
- **Peking University**, P. R. China 2011-2014  
**Master of Science**, Environmental Sciences, GPA: 87.30/100.00  
Thesis: Effects of anions and surface characteristics on the deposition behaviors of plasmid DNA.
- **University of Electronic Science and Technology of China**, P. R. China 2007-2011  
**Bachelor of Engineering**, Environmental Engineering, GPA: 3.81/4.00  
Thesis: Detection and adsorption treatment of iron and manganese in raw water.

## **PROFESSIONAL EXPERIENCE**

- **Project Supported by Wisconsin Department of Agriculture, Trade and Consumer Protection**  
*Project member*, Milwaukee, United States 2018-present
  - ✧ *Assessment of pesticide contamination in suburban drinking water wells in Southeast Wisconsin*
- **Project Supported by DoD Strategic Environmental Research and Development Program**  
*Project member*, Milwaukee, United States 2018-present
  - ✧ *Treatment of legacy and emerging fluoroalkyl contaminants in groundwater with integrated approaches: rapid and regenerable adsorption and UV-induced defluorination*
- **Project Supported by Water Equipment and Policy (WEP)**  
*Project member*, Milwaukee, United States 2015-2016
  - ✧ *Participated in the project Phosphate-Free Inorganic Inhibitors for Water Supplies to Mitigate Lead Release and Corrosion*

- ✧ Systematically investigate the capability of a suite of low-cost, environmentally friendly, and phosphate-free inorganic inhibitors in mitigating lead release from aged metallic lead materials under conditions relevant to Chicago and Milwaukee drinking water distribution
- ✧ Generate a large set of data to evaluate the performance of various inorganic inhibitors on corrosion control and lead release prevention and obtain optimum inhibitor formulations and concentrations for use in water supplies
- **Project Supported by the National Natural Science Foundation of China**

*Project member*, Beijing, P. R. China 2012-2014

  - ✧ Participated in the project *Influence of Natural Organic Matters, Surfactant and Nutrients on the Transport Behaviors of Microorganisms in the Environmental Media* (Grant No. 21177002) and *Deposition and Transport Kinetics of Colloids in Soil-Groundwater System* (Grant No. 41422106)
  - ✧ Investigated the influence of anions and surface characteristics on the deposition and transport behaviors of plasmid DNA, bacteria, viruses (bacteriophage MS2) and nanoparticles under various environmental conditions by utilizing a quartz crystal microbalance with dissipation (QCM-D) and column systems
  - ✧ Observed the effects of sulfate, phosphate and silicate on the deposition of plasmid DNA on both silica and alumina-coated surfaces and analyzed it with QCM-D data, diffusion coefficients and zeta potentials data
- **Practical Studies on the Environment in China and Japan**

*Project member*, Waseda University, Japan 2012

  - ✧ Learned together with graduate students from Waseda University on government policies and practical activities of various sectors for environmental protection and sustainability in China (Beijing, Tianjin) and Japan (Tokyo, Ishinomaki, Kesenuma, Hiraizumi, Aizu, Kitakata)
  - ✧ Studied the new energy policy, environmental non-governmental organizations, and waste treatment enterprises' activities in China and Japan by the field visits and literature review
  - ✧ Focused on the activities of environmental enterprises in steady state and emergency (i.e. earthquake) and concluded in the report *The Comparison of Solid Waste Treatment between China and Japan*

## **HONORS AND AWARDS**

- **Graduate Student Travel Award of UWM, 2017, 2019**
- **Chancellor's Graduate Student Award of UWM, 2016, 2017, 2018, 2019**
- **Academic Excellence Award of Central States Water Environment Association, 2016**
- **Graduate Student Scholarship of Peking University, 2011, 2012, 2013**
- **Outstanding Social Practice of Peking University, 2013**

- **CESE Scholarship of Peking University**, 2013
- **Outstanding Graduates of Sichuan Province**, 2011
- **National Scholarship**, Ministry of Education, P. R. China, 2008, 2009

## **JOURNAL PUBLICATIONS AND PRESENTATIONS**

- **Xiaopeng Min**, Peng Han, Haiyan Yang, Hyunjung Kim, and Meiping Tong. Influence of sulfate and phosphate on the deposition of plasmid DNA on silica and alumina-coated surfaces. *Colloids and Surfaces B: Biointerfaces*, 2014, 118, 83-89.
- Haiyan Yang, **Xiaopeng Min**, Shangping Xu, and Yin Wang. Lanthanum (III) coated ceramics as a promising material in point-of-use water treatment for arsenite and arsenate removal. *ACS Sustainable Chemistry & Engineering*, 2019, 7, 9220-9227.
- Li Wang, **Xiaopeng Min**, Xiaoyu Sui, Junhong Chen, and Yin Wang. Facile construction of novel BiOBr/Bi<sub>12</sub>O<sub>17</sub>Cl<sub>2</sub> heterojunction composites with enhanced photocatalytic performance. *Submitted*.
- **Xiaopeng Min**, and Yin Wang. Functional-bridged periodic mesoporous organosilica materials for heavy metal removal. *In preparation*.
- **Xiaopeng Min**, and Yin Wang. Design of bimetallic catalysts with enhanced performance for oxyanions removal. *In preparation*.
- Yonghong Zou, **Xiaopeng Min**, and Yin Wang. Multifunctional core/shell structured mesoporous silica adsorbent for heavy metal and organic pollutant removal. *In preparation*.
- **Xiaopeng Min**, and Yin Wang. Catalytic destruction of emerging contaminants by structured palladium-based materials. 253rd American Chemical Society National Meeting, April 2-6, 2017, San Francisco, California.
- **Xiaopeng Min**, and Yin Wang. Catalytic destruction of oxyanions by bimetallic noble metal-based materials. 255th American Chemical Society National Meeting, March 18-22, 2018, New Orleans, Louisiana.
- Yin Wang, and **Xiaopeng Min**. Structured bimetallic catalysts for oxyanion reduction. 256th American Chemical Society National Meeting, August 19-23, 2018, Boston, Massachusetts.
- **Xiaopeng Min**, Jingwan Huo, Qianqian Dong, and Yin Wang. Adsorption of per- and polyfluoroalkyl substances on functionalized mesoporous silica. 257th American Chemical Society National Meeting, March 31-April 4, 2019, Orlando, Florida.
- Qianqian Dong, Jingwan Huo, **Xiaopeng Min**, and Yin Wang. Functionalized mineral adsorbents for the removal of perfluorinated chemicals. 257th American Chemical Society National Meeting, March 31-April 4, 2019, Orlando, Florida.
- Li Wang, **Xiaopeng Min**, and Yin Wang. Novel bismuth oxyhalides-based hybrid materials with improved photocatalytic performance. 258th American Chemical Society National Meeting, August 25-29, 2019, San Diego, California.