Assistant Professor Ying Li

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Academic Qualification:

09.2015-06.2019, Ph.D. in Environmental Science, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences, China

09.2012-06.2015, MSc in Environmental Science, South China University of Technology, China

Teaching Area

- Environmental Chemistry
- Soil Science
- Environmental Geochemistry
- Water Chemistry
- Fundamentals of Environmental Science

Research Area

- Biogeochemical cycles of nutrients and heavy metals
- Contamination and remediation of soils and water
- Environmental minerology
- Application of advanced spectroscopic techniques

Working Experience

08.2022-present, Assistant Professor, Macau University of Science and Technology, China

06.2019-12.2021, Postdoc Research Associate, University of Illinois at Urbana-Champaign, USA

09.2017-04.2019, Visiting Scholar, University of Illinois at Urbana-Champaign, USA

Research Grants

1. Advanced Photon Source, Argonne, IL, Effect of carbonate on the formation and transformation of green rusts, Proposal ID: 69156, 2020 – 2022, **PI**.
2. Advanced Photon Source, Argonne, IL, Effect of (bi)carbonate on the transformation of ferrihydrite at near neutral pH, Proposal ID: 66902, 2019 – 2021, **PI**.
3. Research Grant of the Clay Minerals Society, Effect of isomorphous substitution on the reducing capability of magnetite coupled with aqueous Fe^{2+}, 2019 – 2022, **PI**.
4. Illinois Nutrient Research and Education Council, Understanding mechanisms and processes of dissolved reactive phosphate (DRP) loss in Illinois tile-drained fields, 2016-4-360347-203, 2016 – 2021, Core participant.
5. USDA National Institute of Food and Agriculture, Sources and transport of phosphorus in tile drained agricultural watersheds using advanced chemical analysis, 2016-67019-25268, 2016 – 2020, Participant.
6. National Natural Science Foundation of China, Interaction of magnetite coupled with Fe(III) and its reducing capability towards environmental pollutants, 41572032, 2016 – 2019, Core participant.
7. CAS/SAFEA International Partnership Program for Creative Research Teams, Mineral structure and surface physicochemistry, 20140491534, 2014 – 2018, Participant.

8. Natural Science Foundation of Guangdong Province, China, Degradation of tetrabromobisphenol A by nanoscale zero-valent iron bimetal particles, 2016A030313507, 2016 – 2019, Participant.
9. National Natural Science Foundation of China, Effect of surfactants on the surface properties and structure, reaction mechanisms and transport process of nanoscale iron, 41103050, 2012 – 2014, Core participant.

Representative publications (Complete publication refer to my webpage)

Jounal Papers

1. **Ying Li**, Chaoqun Zhang, Meijun Yang, Hongping He, Yuji Arai*, Carbonate accelerated transformation of ferrihydrite in the presence of phosphate. ***Geoderma,*** 2022, 417, 115811.
2. **Ying Li**, Kenneth J.T. Livi, Mary R. Arenberg, Suwei Xu, Yuji Arai*, Depth sequence distribution of water extractable colloidal phosphorus and its phosphorus speciation in intensively managed agricultural soils, ***Chemosphere*** , 2022, 286, 131665.
3. **Ying Li**, Meijun Yang, Martin Pentrak, Hongping He, Yuji Arai*, Carbonate-enhanced transformation of ferrihydrite to hematite, ***Environmental Science & Technology*** , 2020, 54, 13701-13708.
4. **Ying Li**, Gaoling Wei, Xiaoliang Liang*, Caihua Zhang, Jianxi Zhu, Yuji Arai, Metal substitution-induced reducing capacity of magnetite coupled with aqueous Fe(II), ***ACS Earth and Space Chemistry*** , 2020, 4: 905-911.
5. **Ying Li**, Donghui Han, Yuji Arai, Xin Fu, Xiaoqin Li*, Weilin Huang, Kinetics and mechanisms of debromination of tetrabromobisphenol A by Cu coated nano zerovalent iron, ***Chemical Engineering Journal*** , 2019, 372: 95-103.
6. **Ying Li**, Gaoling Wei, Caihua Zhang, Xiaoliang Liang*, Wei Chu*, Hongping He, Joseph W. Stucki, Lingya Ma, Xiaoju Lin, Jianxi Zhu, Remarkable effect of Co substitution in magnetite on the reduction removal of Cr(VI) coupled with aqueous Fe(II): Improvement mechanism and Cr fate, ***Science of the Total Environment*** , 2019, 656:
7. **Ying Li**, Gaoling Wei, Hongping He, Xiaoliang Liang*, Wei Chu*, Deyin Huang, Jianxi Zhu, Wei Tan, Qiuxin Huang, Improvement of zinc substitution in the reactivity of magnetite coupled with aqueous Fe(II) towards nitrobenzene reduction, ***Journal of Colloid and Interface Science*** , 2018, 517: 104-112.
8. **Ying Li**, Xiaoqin Li*, Donghui Han, Weilin Huang, Chen Yang, New insights into the role of Ni loading on the surface structure and the reactivity of nZVI toward tetrabromo- and tetrachlorobisphenol A, ***Chemical Engineering Journal*** , 2017, 311: 173-182.
9. **Ying Li**, Xiaoqin Li*, Yang Xiao, Chaohai Wei, Donghui Han, Weilin Huang, Catalytic debromination of tetrabromobisphenol A by Ni/nZVI bimetallic particles, ***Chemical Engineering Journal*** , 2016, 284: 1242-1250.
10. Xiaoliang Liang*, **Ying Li***, Gaoling Wei, Hongping He, Joseph W. Stucki, Lingya Ma, Linda Pentrakova, Martin Pentrak, Jianxi Zhu, Heterogeneous reduction of 2-chloronitrobenzene by Co-substituted magnetite coupled with aqueous Fe^{2+}: Performance, factors, and mechanism, ***ACS Earth and Space Chemistry*** , 2019, 3: 728-737. **(*Co-corresponding author)**
11. **Ying Li**, Yang Xiao, Xiaoqin Li*, Chen Yang, Degradation of phenanthrene by nanoscale zero-valent iron and its bimetallic nanoparticles, ***Acta Scientiae Circumstantiae*** , 2015, 35: 499-507. **(In Chinese)**
12. **Ying Li**, Yang Xiao, Xiaoqin Li*, Research progresses in tetrabromobisphenol A degradation technologies, ***Environmental Protection of Chemical Industry*** , 2014, 34: 326-331. **(In Chinese)**
13. Ai Chen, **Ying Li**, Jianying Shang, Yuji Arai*, Ferrihydrite transformation impacted by coprecipitation of phytic acid, ***Environmental Science & Technology*** , 2020, 54: 8837-8847.
14. Meijun Yang, Xiaoliang Liang, **Ying Li**, Hongping He*, Runliang Zhu, Yuji Arai*, Ferrihydrite transformation impacted by adsorption and structural incorporation of rare earth elements. ***ACS Earth and Space Chemistry*** , 2021,

Parents

1. Xiaoqin Li, **Ying Li**, Xin Fu, Qun Chen, Na Ji, A protocol for the removal of total nitrogen, total phosphorus, and heavy metals from river by zero-valent iron, China, **ZL 2014 1 0386229.3**.

Professional Certification and Awards

• Outstanding research achievement award for graduate students, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences (GIG, CAS), 2020.

• Outstanding Graduate, University of Chinese Academy of Sciences, 2018 – 2019.

• A research grant award from the Clay Minerals Society and a travel grant award for EUROCLAY 2019 (2019 CMS Annual Conference).

• Second prize of academic report of the eighth “Mineralogy and metallogeny” academic forum, GIG, CAS, 2018.

• Third prize of academic report of “World Soil Day” young scholar forum, Guangdong Society of Soil Sciences, 2018.

• Third prize of research poster of the sixth “Mineralogy and metallogeny” academic forum, GIG, CAS, 2016.

• Excellence paper award of National Mineral Science and Engineering Conference, Chinese Society for Mineralogy, Petrology and Geochemistry, 2016.

• Merit Student, University of Chinese academy of sciences, 2015 – 2016.

• First-class Scholarship, South China University of Technology, 2012 – 2013, 2013 – 2014.

• Second prize of academic report in the seminar “Biological and Abiotic Degradation of Brominated Flame Retardants”, GIG, CAS, 2013.

Journal Editorship

Personal Website

https://scholar.google.com/citations?hl=en&user=t3QWSIQAAAAJ