
Huan LIU

Earth and Planetary Sciences
Washington University in St. Louis
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My research interests reside in microbe-mineral-water interactions, and mineral transformation, as well as surrounding environments of heavy metals and microbial function in geological events.

Education

08/2015-Present Visiting student in Earth and Planetary Sciences, Washington University in St. Louis
09/2014-Present Ph.D. in Geology (major in mineralogy), School of Earth Sciences and Engineering, Nanjing University, China
09/2012-06/2014 M.S. in Geology, School of Earth Sciences and Engineering, Nanjing University, China
09/2008-06/2012 B.S. in Geology, School of Earth Sciences and Engineering, Nanjing University, China

Awards and Honors

10/2013 National Scholarship for graduate students
08/2013 Goldschmidt2013 Travel Grant of the 23rd Goldschmidt Geochemistry Conference
12/2012 Qihang Scholarship
06/2012 Special-class Award of Outstanding Graduation Thesis
06/2012 Excellent graduates of Nanjing University
12/2011 National Motivational Scholarship
12/2010 National Motivational Scholarship

Laboratory Skills and Academic Interests

- Analytical instruments: ICP-AES, AFS, EMPA, XRF, FE-SEM, TEM, XRD, Raman spectroscopy and Synchrotron-based XAFS, STXM, CT, μ -XRF, XRD.
- Software: Origin Lab, Iffeffit (Demeter), Jade, CorelDRAW, CasaXPS.

Research

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- 01/2013-present NSFC project: Microbial function and deposit significance on the formation and transformation of manganese minerals (NO. 41272056)
- 10/2011-12/2013 NSFC project: Arsenic occurrence and its microbiogeochemistry in serious arsenic polluted metal sulfide mining areas (NO. 40930742)

Selected Publications

- Zhu Xiangyu, Wang Rucheng, Lu Xiancai, **Liu Huan** et al. (2014) Scondary minerals of weathered orpiment-realgar bearing tailings in Shimen carbonate type realgar deposit, Changde, Central China. *Mineralogy and Petrology*, 1-15 DOI: 10.1007/s00710-014-0344-4.
- Zhu Tingting, Lu Xiancai, **Liu Huan**, Li Juan, Zhu Xiangyu, Lu Jianjun, Wang Rucheng. (2014) Quantitative X-ray photoelectron spectroscopy-based depth profiling of bioleached arsenopyrite surface by *Acidithiobacillus ferrooxidans*. *Geochimica et Cosmochimica Acta*, 127, 120-139.
- Ouyang Bingjie, Lu Xiancai, **Liu Huan**, Li Juan, Zhu Tingting, Zhu Xiangyu, Lu Jianjun, Wang Rucheng. (2014) Reduction of Jarosite by *Shewanella oneidensis* MR-1 and Secondary minerals [J]. *Geochimica et Cosmochimica Acta*, 124, 54-71.
- Liu Huan**, Lu Xiancai, Ouyang Bingjie, Li Juan, Lu Jianjun. (2013) Stability of Schwertmannite Synthesized in Ferric Chloride-Sodium Sulphate System [J]. *Journal of the Chinese ceramic society*, 41(5): 663-668. (in Chinese with English abstract)
- Liu Huan**, Lu Xiancai, Li Lei, Wu Haiguang, Tan Lihua, Zhu Tingting, Li Juan. (2011) An experiments study on adsorption of Cu²⁺ and Pb²⁺ by synthesized schwertmannite [J]. *Acta Mineralogica Sinica*, 31(4): 669-675. (in Chinese with English abstract)

Academic Conferences

- 11/2014 2014 National Congress of Mineralogical Science and Engineering
Oral presentation: Mineralogical Constraints on Spatial Distribution of As and Zn in natural Ferromanganese duricrust
- 08/2013 The 23rd Goldschmidt Geochemistry Conference
Oral presentation: Oxidization of chalcopyrite Mediated by *Acidithiobacillus ferrooxidans* and secondary minerals
- 07/2013 11th International Congress of Applied Mineralogy
- 04/2013 14th National Congress of Chinese Society for Mineralogy, Petrology and Geochemistry
Oral presentation: Mineralogical characteristics of schwertmannite and its application for removal of copper and lead
- 09/2012 Shanghai Synchrotron Radiation Facility annual user academic exchange conference