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### **Education**

- Postdoctor, Hydrometallurgy, Central South University, Changsha, P.R.China, 2011
- Ph.D. Microbiology, Central South University, Changsha, P.R.China (Joint training in Wuhan University, Wuhan, P.R. China), 2005
- Master of Phytopathology, Hunan Agricultural University, Changsha, P.R. China (Joint training in Institute of Animal and Plant Quarantine, Beijing, P.R.China), 2002
- Bachelor of Plant Protection, Hunan Agricultural University, Changsha, P.R. China, 1999.

### **Academic Appointments**

- Research Associate 1, Hazen Lab, Civil & Environmental Engineering, University of Tennessee Knoxville & Oak Ridge National Laboratory. Nov.2011 – present
- Associate Professor, School of Minerals Processing and Bioengineering, Central South University & Key Lab of Biohydrometallurgy of Ministry of Education. Oct. 2008 – present
- Lecturer, School of Minerals Processing and Bioengineering, Central South University & Key Lab of Biohydrometallurgy of Ministry of Education. Dec. 2005 – Sept. 2008

### **Honors and Awards**

The key college young teacher culturist, Hunan Provincial Government, 2011  
The Outstanding Postdoctor, Central South University, 2011  
The Outstanding Tutor of undergraduate, Central South University, 2009  
The Outstanding Instructor of undergraduate Thesis, Central South University, 2009  
The Excellent Faculty, Central South University, 2007  
Science and Technology Progress Award, Third prize, Hunan Provincial Government, 2002

### **Publications**

1. **J.Y. Zhu**, W.f. Jiao, Q. Li, X.D. Liu, W.Q. Qin, G.Z. Qiu, Y.H. Hu, L.Y. Chai. *Investigation of energy gene expressions and community structures of free and attached acidophilic bacteria in chalcopyrite bioleaching*, J Ind Microbiol Biotechnol, 2012 (39)1833–1840.
2. **J.Y. Zhu**, Q. Li, W.F. Jiao, H. Jiang, W.G. Sand, J.L. Xia, X.D. Liu, G.Z. Qiu, Y.H. Hu, L.Y. Chai. *Adhesion forces between cells of Acidithiobacillus ferrooxidans, Acidithiobacillus thiooxidans or Leptospirillum ferrooxidans and chalcopyrite*, Colloids and Surfaces B: Biointerfaces, 2012 (94) 95–100.
3. W. Ma, G. Chen, D. Zhang, **J.Y. Zhu**, G.Z. Qiu, X.H. Liu. *Shape-controlled synthesis and properties of dandelion-like manganese sulfide hollow spheres*, Materials Research Bulletin, 47 (2012) 2182 – 2187
4. M.M.LI, M.Gan, **J.Y. Zhu** L.Y. Chai. *Remediation technology for river sediment polluted by*

- heavy metals*, Nonferrous Metals Science and Engineering, China. 2012(2)67–70
5. Z. Chi, **J.Y. Zhu**. *Microcalorimetric Study of the Influence of Extracellular NaCl Concentration on the Growth Metabolism of Halobacterium halobium*. *Acta Phys.-Chim. Sin.* 2011, 27 (6), 1525-1530
  6. W. Q. Qin; Q. X.; Huang; **JY Zhu**; P. Yang; R. L. Yu; J. K. Li; X. D. Liu; G. Z. Qiu. *Expression and Function of Two Chaperone Proteins, AtGroEL and AtGroES, from Acidithiobacillus ferrooxidans ATCC 23270*. *World Journal of Microbiology and Biotechnology*, 2011(27) 2981–2988.
  7. J. K. Li, Y. L. Gon, L. L. Tang, **J.Y. Zhu**. *Progress in the Study of Metallophytes*, *Life Science Research, China*. 2011, v. 15; No. 63(06) 94-98
  8. **J.Y. Zhu**; Q. X.; Huang; B. D. Gao, S. F. Zhu. *Development of real-time fluorescent RT-PCR assays for the detection of prunus necrotic ringspot virus with a TaqMan probe*, *Microbiology China*, 2011, 38(8): 1295–1299.
  9. H. M. Liao, C. Wu, G. H. Wang, **J.Y. Zhu**. *An evaluation model for ranking the vegetative growth rate of transgenic Brassica crops*. *Journal of Fujian Agriculture and Forestry University (Natural Science Edition)*, 2010, 18(2):132–138
  10. J. X. Zhang, R. F. Wang, **J.Y. Zhu**. *Isolation and characterization of a strain of Pseudomonas aeruginosa from heavy metals contaminated sediment*. *Chinese sciencepaper online*, 2010
  11. **J.Y. Zhu**, J. X. Zhang, H. F. Zhou, L. Y. Chai, W. Q. Qin, Y. H. Hu. *Microwave-assisted synthesis and characterization of ZnO-nanorod arrays*, *Transactions of Nonferrous Metals Society of China*, 2009, 19(6):1578-1582;
  12. Jiang, JH; Yu, RN; **Zhu, JY**; Yi, R; Qiu, GZ; He, YH; Liu, XH. *Shape-controlled synthesis and properties of manganese sulfide microcrystals via a biomolecule-assisted hydrothermal process*, *Materials Chemistry and Physics*, 2009(115):502-506.
  13. Zeng, C; Zhao, YZ; Cui, CZ; Zhang, H; **Zhu, JY**; Tang, XF; Shen, P; Huang, Y P; Chen, X D. *Characterization of the Haloarcula hispanica amyH gene promoter, an archaeal promoter that confers promoter activity in Escherichia coli*. *Gene*, 2009(442):1-7.
  14. X. M. Wang, J. S. Liu, B. M. Li, **J.Y. Zhu**, H. T. Wang, Y. Yan, G. Z. Qiu. *Study on the Enthalpy Variation during Adsorption Processes of Acidithiobacillus ferrooxidans ATCC23270 on the Surface of Minerals and Its Metabolic Thermogenesis under Different Conditions*. *Geological Journal of China Universities*. 2009, 15(2):256-262.
  15. H. M. Liao, C. Wu, G. H. Wang, **J.Y. Zhu**, S. B. Ma, F. S. Wang. *Predicting transgene flow by modeling compatibility with Brassica napus*, *Acta Ecologica Sinica*, 2009, 29(10):5570-5579.
  16. **J.Y. Zhu**, P. Yang, B. M. Li, J. X. Zhang, Q. X. Huang. *Microcalorimetric studies of interaction between extracellular polymeric substance and sulfide minerals*. *Transactions of Nonferrous Metals Society of China*, 2008, 18: 1439-1442
  17. **J.Y. Zhu**; Y. Liu, Y. H. Hu, C. Zeng, C. Z. Cui, Y. P. Huang, P. Shen. *Microcalorimetric Study on Deletion Mutagenesis of the Gene Promoter Sequences from the Extremely Halophilic Archaea*, *Acta Chimica Sinica*, 2006, 64:508-514;
  18. **J.Y. Zhu**, Y. H. Hu, J. Liu, Y. P. Huang, P. Shen. *Analysis of promoter sequence and its activity of homologous gene rad25 of eukaryotes from halophilic archaea*. *Acta Microbiologica Sinica*, 2006, 46:196-199.
  19. C. Zeng, J. C. Zhu, Y. Liu, Y. Yang, **J.Y. Zhu**, Y. P. Huang and P. Shen. *Investigation of the influence of NaCl concentration on halobacterium salinarum growth*, *Journal of Thermal*

- Analysis and Calorimetry, 2006, 84(3):625-630.(SCI)
20. **J.Y.Zhu**,J.K.Zhou.Advances on the microbial detection in molecular biology technique  
Journal of Biology, China.2004(21)2:6-8
21. **J.Y.Zhu**,S.F.Zhu,X.L.Liao,B.D.Gao.*Detection of Tomato ring spot virus by real-time  
fluorescent RT-PCR one step assay*, Acta Phytopathologica Sinica,2003,33(4):338-341.
22. **J.Y.Zhu**, X.L.Liao,B.D.Gao,S.F.Zhu, H.Y.Chen,F.Q.Dai.*The establishment of detection of  
real-time fluorescent PCR and capture-PCR-ELISA for detection of fire blight Erwinia  
amylovora*, Plant Quarantine,China.2003(17)1:7-10.
23. X.L.Liao, S.F.Zhu, H.Y.Chen,W.S.Huang,K.Luo,W.J.Zhao, R.Q.Ma,**J.Y.Zhu**. *Establishment of  
Real-time Fluorescent PCR method with TaqMan Probe for Phytoplasma Detection and  
Identification*, Acta Phytopathologica Sinica,2002,32(11):361-367.

### **Research Projects**

Research direction 3, development plan, Metal analysis deep basin water and sediments

Research direction 2, Bioremediation of soils and sediments polluted with heavy metals

Principal Investigator. 2012-2015, General Program, The National Natural Science Foundation of China (No.51174239).

Principal Investigator. 2010-2011, Second-funded Program, The National Science Foundation for Post-doctoral Scientists of China. (No.201003526).

Principal Investigator. 2009-2011. General Program, Hunan Provincial Natural Science Foundation of China (No.10JJ3001).

Research direction 1, Basic research of microbial metallurgy

Participant. 2010-2014..A Class Program, The National Basic Research Program of China (No.2010CB630905).

Principal Investigator. 2008-2010. Youth Fund Program, The National Natural Science Foundation of China (No.30700008).