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Auburn, AL 36830 **ZHONG XIONG** Homepage: www.eng.auburn.edu/users/xiongzh/

Objective To obtain an internship position in Environmental Engineering providing an opportunity for me to contribute immediately to organizational goals with my education and through continued development of professional skills.

Education

Ph.D. of Civil Engineering (environmental emphasis) *Auburn University*, Auburn, AL. 01/2004-12/2007

Dissertation: Destruction of Perchlorate and Nitrate by Zero-Valent Iron Nanoparticles and Mercury Immobilization by Iron Sulfide Nanoparticles.

M.S. of Environmental Engineering *Chongqing University*, Chongqing, China. 09/2000 – 06/2003

Thesis: The Treatment of Landfill Leachate Using an Upflow Anaerobic Sludge Blanket.

B.S. of Environmental Engineering *Chongqing University*, Chongqing, China. 09/1996 – 06/2000

Experiences

Auburn University Auburn, AL

Graduate Research & Teaching Assistant 01/2004 – Present

- Co-invented of two patent-pending environmental engineering technologies.
- 1st-authored of 7 published or would-be published peer-reviewed papers in journals such as *Water Research*.
- Investigated the removal of perchlorate from groundwater and drinking water by various ion-exchangers.
- Developed a new class of Polymeric Ligand Exchange resins for removing perchlorate and arsenic.
- Demonstrated complete degradation of perchlorate and nitrate by stabilized zero-valent iron nanoparticles.
- Established a new method to prepare highly dispersive and stable iron sulfide nanopraticles.
- Studied mercury immobilization and mercury methylation inhibition using iron sulfide nanoparticles.
- Taught an undergraduate environmental lab about coagulation, water hardness, alkalinity, chemical precipitation, disinfection, and ion exchange and so on.
- Had experiences with laboratory procedure and analytical methods of most environmental pollutants using Atomic Absorption Spectrometer, Ion Chromatography, Total Organic Compound Analyzer, and High Performance Liquid Chromatography.

Chongqing University Chongqing, China

Graduate Research Assistant 09/2000 – 12/2003

- Conceived and constructed a lab-scale Upflow Anaerobic Sludge Blanket reactor.
- Investigated the treatability of landfill leachate by an Upflow Anaerobic Sludge Blanket.
- Designed a wastewater treatment plant as a course project.

Patents

Dongye Zhao, Zhong Xiong, Matt O. Barnett, Willie, F. Harper Jr,. In-situ Immobilization / Containment of Mercury in Soils and Sediments Using a New Class of Stabilized Metal Sulfide Nanoparticles. U.S. Provisional Patent Application # 60/777,309. Filling Date: February 28, 2006.

Dongye Zhao, Zhong Xiong. Complete destruction of perchlorate and nitrate in water and brine using stabilized iron-based nanoparticles. U.S. Provisional Patent Application # 60/787,626. Filling Date: March 30, 2006.

Honors

Graduate Student Award in Environmental Chemistry (Jan. 2007, American Chemistry Society).

CH2M HILL Fellowship for Outstanding Ph.D. Students (May 2006, Auburn, AL).

Third Place Poster Presentation at Alabama Water Resource Conference (Oct. 2005, Orange Beach, AL).

Dean's Fellowship from Engineering School at Auburn University (Jan. 2004, Auburn, AL).

OutstandingGraduate at Chongqing University (Apr. 2003, Chongqing, China).

Computer Skills Microsoft Office, AutoCAD, SigmaPlot, MinteQ, GMS, Photoshop, GPSOffice, ArcGIS, Frontpage, ChemOffice, SAS, Fortran, C

Activities Vice President of War Eagle Water Environment Association; Student Member of AWEF, WEF, ACS; Environmental & Water Resources Seminar Coordinator; Intramural Soccer; FE Exam passed

References available on request