

Weihui (Claire) XIONG

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EDUCATION

School of Resource and Environmental Sciences, WHU

09/2014-Present

B.S in Environmental Engineering

Overall GPA: 3.68/4.00 Major GPA: 3.77/4.00 (Top 15%)

PUBLICATION AND PRESENTATION

2nd author, "Oxidation of organic contamination in a self-driven electro/natural maghemite/per oxysulfate system: Efficiency and mechanism" on *Science of Total Environment* (2017, 599-600: 1181-1190)

"Bio-Electro Process Driven by Microbial Fuel Cell (MFC) with Heterogeneous Catalyst for Degradation"

04/2015

Presentation for Planning Project of Innovation and Entrepreneurship Training of National Undergraduate

RESEARCH EXPERIENCES

Bioconversion and Emerging Contaminants Lab | Eau Terre Environment Research Centre | University Quebec-INRS

Advisor: Satinder Kaur Brar, Professor at Eau Terre Environment Research Centre, University Quebec-INRS

Green Alternative to Antibiotics in Poultry

06/2017-09/2017

- Combined probiotics (*Saccharomyces*), enzymes (Amylase, Lipase, Phytase, Protease and Xylanase) and organic acids (citric acids) created by different microbes to produce alternative to antibiotics
- Exploited the waste from industries as the nutrients for the growth of microbes, such as *Aspergillus niger*, *Bacillus subtilis*, *Saccharomyces cerevisiae*
- Researched the optimized condition for the growth of *Aspergillus niger*, including time of growth (7 days)
- Independently compared probiotics stability and enzymes stability, including Amylase, Lipase, Protease, and Xylanase, before and after spray drying.
- Provided a comprehensive presentation of stability of the production by analyzing results along with the previous data to offer advice on improving the stability of probiotics and enzymes, as well as adding Alginate before spray drying

Advanced Oxidation Process Lab | Department of Environmental Engineering | WHU

Advisor: Hui Zhang, Professor at Department of Environmental Engineering, WHU

Project I: Bio-Electro Process Driven by Microbial Fuel Cell (MFC) with Heterogeneous Catalyst for Degradation

(Planning Project of Innovation and Entrepreneurship Training of National Undergraduate)

04/2016-Present

- Compared the process driven by MFC with the process driven by Direct Current (DC) on the efficiency of degrading Acid Orange 7 (AO7)
- Researched the optimum conditions for bio-electro process driven by MFC, including pH(6.0), time for reaction (2 hours), current density (50 mA/m²), concentration of PMS (5.0mM), concentration of PDS (10.0mM), and concentration of electrolyte (10mM Na₂SO₄)
- Analyzed the efficiency of different catalysts and proposed new methods to produce them
- Organized a team of 5 members, published a journal article as a 2nd author, and provided a conclusive presentation

Project II: Sludge Dewatering with Activated Persulfate Process

03/2015-11/2015

- Researched the optimum conditions for dewatering, including pH, temperature, concentration of PDS, concentration of PMS and time of reaction
- Proposed improvements on testing the efficiency of sludge dewatering, including changes to the original method of creating catalyst

AWARDS AND HONORS

2 nd Prize of Annual Scholarship in School of Resource and Environmental Science, WHU (10%)	2014/2015/2016
Honored as Annual Excellent Student in WHU (5%)	2014/2015/2016
3 rd Prize of National Undergraduate Mathematics Competition (12.5%)	2015/2016

LEADERSHIP AND ACTIVITIES

Vice President |WHU Model United Nations (MUN) Organization 09/2016-08/2017

- Organized the 6th and 7th WHUMUN Conferences in each of those over 200 international and national students participated, and designed the themes for 2 English commissions
- Managed over 100 members, and held weekly meetings for 2 departments

Wuhan Open Tennis Competition (WTA) Volunteer (0.03%) 09/2015-10/2015

- Rate of being selected at one blow is 0.03%
- Interpreted between local broadcasters, the coaches and the Referee

ADDITIONAL INFORMATION

Language: Chinese: Native speaker English: Fluent German: Beginner

Computer: AutoCAD, Access, C Language, Microsoft Office, Matlab, Origin

GRE: 154(V)+168(Q)+3.0(AW) **TOEFL:** 27(R)+ 24(L)+ 23(S)+ 27(W)=101