



Shumeng Liu

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Education

2009.9 -2013.6	Tongji University Bachelor of Engineering, Environmental Engineering	Shanghai, P.R. China
2013.9 -Present	Columbia University Master of Science, Environmental Engineering	New York, NY, USA

Research Experience

2013.3-2013.6	Reaction Mechanism Between PbO and PVC during Thermal Treatment <i>College of Environmental Science and Engineering, Tongji University</i>	Shanghai, P.R. China
	<ul style="list-style-type: none">• Studied the thermal conversion process of PbO and PVC under different atmospheres respectively• Investigated the impact of heating rate on the thermal conversion process• Compared the thermal conversion process of the mixture under different atmospheres	
2011.5-2012.5	Wastewater Treatment Using Dynamic Membrane Process <i>College of Environmental Science and Engineering, Tongji University</i>	Shanghai, P.R. China
	<ul style="list-style-type: none">• Separated organic matter using the upflow anaerobic dynamic MBR• Investigated the performance of an MBR with a low influent COD/N-ratio• Found sludge reduction and membrane fouling mitigation• Discovered that energy was derived by microbes through a more autotrophic metabolism in the nitrification tank• Found that nitrification was enhanced due to the enrichment of nitrifiers	
2010.11-2012.4	Rotating Disk Nano TiO₂ Photoelectric Catalytic Reactor <i>College of Environmental Science and Engineering, Tongji University</i>	Shanghai, P.R. China
	<ul style="list-style-type: none">• Produced an array of titanium dioxide nanotubes using the electrochemical anodic oxidation method• Compared photo, electro and photoelectric catalytic performances of the titanium dioxide nanotubes• Designed a Nano TiO₂ photoelectric catalytic reactor• Analyzed the degradation performance of the rotating disk reactor compared with the traditional Nano TiO₂ photoelectric catalytic reactor	

Extra-Curricular Activities

2010.9 -Present	Member, Photography Association, Tongji University
2011.9 - 2012.9	Member, Administration Department, Association Union, Tongji University
2010.9	Volunteer, Science and Technology Museum, Shanghai

Honors and Awards

2012.12	Third Class Learning Scholarship, Tongji University
2011.12	Second Class Learning Scholarship, Tongji University
2011.12	Third Class Shanghai Environmental Scholarship, Shanghai, P.R. China
2010.12	Second Class Learning Scholarship, Tongji University
2010.9	National Computer Rank Examination Certificate: Grade: 2 Language: C++

Publication

Tianbin Ren, Lan Li, Xiaojun Cai, Haiqing Dong, Shumeng Liu and Yongyong Li. Engineered polyethylenimine/graphene oxide nanocomposite for nuclear localized gene delivery. *Polymer Chemistry*, 2012, 3, 2561-2569

Jinxing Ma, Zhiwei Wang, Chaowei Zhu, Shumeng Liu, Qiaoying Wang and Zhichao Wu. Analysis of Nitrification Efficiency and Microbial Community in a Membrane Bioreactor Fed with Low COD/N-Ratio Wastewater. *PLoS One*, 2013, 8(5): e63059. Doi: 10.1371/journal.pone.0063059