



Profile

Head of Department of Environmental Engineering, Director of Water Supply and Water Treatment Technology Laboratory, Associate Professor. In 2005, he obtained a doctorate degree in environmental engineering from Shanghai Jiaotong University, having work for Harvard University, Iowa State University, Ghent University for four years as the visiting scholar of post-doctor. He have the about 23 years of experience in innovation of water treatment research. Presiding or participating in the national strategic research and development plans, National Natural Science Foundation, Shanghai Science and Technology Commission, etc. He has been invoted in the more than 20 industry-university-research projects. He published more than 60 academic articles in the international journals such as Water Research, Journal of Power Resources and Journal of Clean Production, and applied for 24 patents.

Research Field

Wastewater treatment technology, environmental electrochemical technology, bioelectrochemical system, sewage pipeline maintenance and management

Research results and selected published papers

(1) Zhang Lehua , Mao Yanping, Ma Jingxing, Li Dongmei, Shi Haifeng, Liu Yongdi, Cai Lankun(*), Effect of the chemical oxidation demand to sulfide ratio on sulfide oxidation in microbial fuel cells treating sulfide-rich wastewater, Environmental Technology, 2013, 34 (2): 269-274。

(2) Zhang Lehua , Ma Jingxing, Liu Yongdi, Li Dongmei, Shi Haifeng, Cai Lankun, Improvement of biological total phosphorus release anduptake by low electrical current application in lab-scale bio-electrochemicalreactors, Bioelectrochemistry, 2012, 88: 92-96。

(3) Zhang Lehua , De Gusseme Bart, Cai Lankun, De Schryver,Peter, Marzorati Massimo, Boon Nico, Lens Piet, Verstraete Willy(*), Addition of an aerated iron-rich waste-activated sludge to control the soluble sulphide concentration in sewage, Water and Environment Journal, 2011, 25 (1): 106-115。

(4) Zhang Lehua , De Schryver Peter, De Gusseme Bart, De Muynck,Willem, Boon Nico, Verstraete Willy(*), Chemical and biological technologiesfor hydrogen sulfide emission control in sewer systems: A review, WaterResearch, 2008, 42 (1-2): 1-12。

(5) Zhang LH , Jia JP , Zhu YC, Zhu NW, Wang YL, Yang J, Electro-chemically improved bio-degradation of municipal sewage, Biochemical Engineering Journal, 2005, 22 (3): 239-244。

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(7) Zhang L. , De Gusseme B., De Schryver P., Mendoza L., Marzorati,M., Verstraete W., Decreasing sulfide generation in sewage by dosingformaldehyde and its derivatives under anaerobic conditions, Water Science andTechnology, 2009, 59 (6): 1248-1254。

(8) Zhang LH , Jia JP, Ying DW, Zhu NW, Zhu YC, Electrochemicaleffect on denitrification in different microenvironments around anodes and cathodes, Research in Microbiology, 2005, 156 (1): 88-92。

(9) Zhang Le-Hua , Jia Jin-Ping, Wang Ya-Lin, Yang Ji, Improveddenitrification of municipal sludge in biofilm-electrode reactor, Chemical Research in Chinese Universities, 2004, 20 (4): 392-395。

(10) Lehua Zhang, Zhihao Lu, DongMei Li, Jingxing Ma, Pengfei Song, Guangtuan Huang, Yongdi Liu, Lankun Cai, Chemically activated graphiteenhanced oxygen reduction and power output in catalyst-free microbial fuel cells, Journal of Cleaner Production, 2016, 115: 332-336。

(11) Lu Zhihao , Chang Dingming, Ma Jingxing, Huang Guangtuan, Cai Lankun, Zhang Lehua (*), Behavior of metal ions in bioelectrochemical systems:A review, Journal of Power Sources, 2015, 275: 243-260。

(12) Lu Zhihao , Girguis Peter, Liang Peng, Shi Haifeng, Huang Guangtuan, Cai Lankun, Zhang Lehua(*), Biological capacitance studies of anodes in microbial fuel cells using electrochemical impedance spectroscopy, Bioprocess and Biosystems Engineering。

(13) Chang Dingming, Zhang Haiqin, Lu Zhihao, Huang Guangtuan, Cai Lankun, Zhang Lehua (*), Behavior of Metal Ions in Microbial Fuel Cells,Progress in Chemistry, 2014, 26 (7): 1244-1254。

(14) Zhihao Lu, Jiali Tang, Maria de Lourdes Mendoza, Dingming Chang, Lankun Cai, Lehua Zhang(*), Electrochemical decrease of sulfide in sewage by pulsed power supply, Journal of Electroanalytical Chemistry, 2015, 745: 37-43。

(15) Junjing Qiao, Peter GIRGUIS, Dongmei LI, Jingxing MA, Lankun CAI, Lehua Zhang(*), Graphite Anodes Activated by Melamine, Carbamide, ZnCl2 and H3PO4in Microbial Fuel Cells, International Journal of Electrochemical Science, 2015, 6 (10): 5001-5012。

(16) Yin, Yao, Huang, Guangtuan(*), Tong, Yiran, Liu, Yongdi, Zhang, Lehua, Electricity production and electrochemical impedance modeling of microbialfuel cells under static magnetic field, Journal of Power Sources, 2013, 237: 58-63。

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(21) Mao Yanping, Cai Lankun, Zhang Lehua, Hou Haiping, Huang Guangtuan, Liu Yongdi, Biocathodes in Microbial Fuel Cells, Progress in Chemistry, 2009, 21 (7-8): 1672-1677。

(22) Diwen Ying, Jinping Jia, Lehua Zhang, Effect of denitrifying bacteria on the electrochemical reaction of activated carbon fiber in electrochemical biofilm system, Frontiers of Environmental Science & Engineering in China, 2007, 1 (3): 305-310。