



Department: School of Resources and Environmental Engineering

Professional field: Environmental Science and Technology

E-mail: lkcai@ecust.edu.cn

Profile

Education

July 1986. Bachelor of Corrosion and Prevention, graduated in the department of Environmental engineering from East China Institute of Chemical Technology.

January 1989. Master of Environmental Chemical Engineering, graduated in the department of Environmental engineering from East China Institute of Chemical Technology.

March 2002. PhD Degree in Environmental Engineering conferred by East China University of Science and Technology.

Work experience

Since January 1989, work in the Department of Environmental Engineering of East China University of Science and Technology. Professor appointed in 2002.

Research Field

- (1) Cultural heritage conservation and museum environment
- (2) Corrosion inhibitor and water treatment
- (3) Environment and materials

Research results and selected published papers

- [1] Yan Y, Li WH, Cai LK, Hou BR. Electrochemical and quantum chemical study of purines as corrosion inhibitors for mild steel in 1 M HCl solution, ELECTROCHIMICA ACTA, Vol.53(20): 5953-5960, AUG 20 2008
- [2] Mao YP, Zhang LH, Li DM, Shi HF, Liu YD, Cai LK*. Power generation from a biocathode microbial fuel cell biocatalyzed by ferro/manganese-oxidizing bacteria, ELECTROCHIMICA ACTA, Vol.55(27): 7804-7808, NOV 30 2010
- [3] Zhang LH, De Gusseme B, Cai LK, De Schryver P, Marzorati M, Boon N, Lens P, Verstraete W, Addition of an aerated iron-rich waste-activated sludge to control the soluble sulphide concentration in sewage, WATER AND ENVIRONMENT JOURNAL, Vol.25(1): 106-115, MAR 2011
- [4] Ying Yan, Dandan Lu, Hao Zhou, Haiping Hou, Ting Zhang, Laiming Wu, Lankun Cai*. Polyaniline-Modified Quartz Crystal Microbalance Sensor for Detection of Formic Acid Gas, WATER, AIR, & SOIL POLLUTION, 2012, 223:1275-1280
- [5] Lehua Zhang, Jingxing Ma, Dongmei Li, Haiqin Zhang, Yongdi Liu, Lankun Cai*. Improvement of biological total phosphorus release and uptake by low electrical current application in bio-electrochemical reactors, BIOELECTROCHEMISTRY, 2012, Vol.88(12):92-96
- [6] Lehua Zhang, Yanping Mao, Jingxing Ma, Yongdi Liu, Lankun Cai*. Effect of the chemical oxidation demand to sulfide ratio on sulfide oxidation in microbial fuel cells treating sulfide-rich wastewater. ENVIRONMENTAL TECHNOLOGY, 2013, Vol.34(2):269-274
- [7] Ying Yan, Xinyu Jiang, Hao Zhou, Laiming Wu, Qiong Wu, Lehua Zhang, Lankun Cai*. Environmental monitoring of organic acids gas by ionic liquid coated QCM sensor, FRESNIUS ENVIRONMENTAL BULLETIN, 2014, 23(4)
- [8] Lehua Zhang, Zhihao Lu, Dongmei Li, Jingxing Ma, Pengfei Song, Guangtuan Huang, Yongdi Liu, Lankun Cai*. Chemically activated graphite enhanced oxygen reduction and power output in catalyst-free microbial fuel cells. JOURNAL OF CLEANER PRODUCTION. 115 (2016): 332 ~ 336
- [9] Lehua Zhang, Willy Verstraete, María de Lourdes Mendoza, Zhihao Lu, Yongdi Liu, Guangtuan Huang, Lankun Cai*. Decrease of dissolved sulfide in sewage by powdered natural magnetite and hematite. SCIENCE OF THE TOTAL ENVIRONMENT., 573 (2016) : 1070-1078
- [10] Wanli Feng, Yao Yin, Maria de Lourdes Mendoza, Lidong Wang, Xiaoyuan Chen, Yongdi Liu, Lankun Cai*, Lehua Zhang*. Freeze-thaw method for oil recovery from waste cutting fluid without chemical additions. JOURNAL OF CLEANER PRODUCTION. 148 (2017): 84 ~ 89
- [11] Yan Y, Lin X, Zhang L, Lankun Cai*. Electrochemical and quantum-chemical study on newly synthesized triazoles as corrosion inhibitors of mild steel in 1 M HCl. RES CHEM INTERMED., 2017, 43(5):3145-3162.
- [12] Yan Y, Ling Dai, Zhang L, Lankun Cai*. Investigation on the corrosion inhibition of two newly-synthesized thioureas to mild steel in 1 mol/L HCl solution. RES CHEM INTERMED., 2018, 44:3437-3454.