



Profile

Associate professor. Engaged in the development and application of entrained flow coal gasification technology and devoted to the research on multi-phase turbulent reaction flow, molten slag reaction flow and development of new technology in the field of entrained flow gasification. More than 20 papers published in CES, Fuel, AIChE, and more than 20 invention patents authorized. Undertake 3 NSFC projects, 1 National Key Research and Development Project (Subject).

Research Field

- (1) Multi-phase turbulent reaction flow, wall slag flow and heat transfer in gasifier.
- (2) Intelligent monitoring of gasifier and numerical simulation
- (3) Development of new coal gasification technology

Research results and selected published papers

- (1) Xu Jianliang, Liang Qingfeng, Dai Zhenghua, Xiaolei Guo, Liu Haifeng*, Xin Gong, Robust online temperature estimation of a membrane-wall gasifier, Chinese Journal of Chemical Engineering, 2010. In press.
- (2) Xu Jianliang, Liang Qingfeng, Dai Zhenghua, Liu Haifeng*, The influence of swirling flows on pulverized coal gasifiers using the comprehensive gasification model, Fuel Processing Technology, 2018, 172: 142–154.
- (3) Xu Jianliang, Dai Zhenghua, Liu Haifeng*, Guo Liangyu, Sun Feng, Modeling of multiphase reaction and slag flow in single-burner coal water slurry gasifier, Chemical Engineering Science, 2017, 162: 41–52.
- (4) Xu Jianliang, Liang Qingfeng, Dai Zhenghua, Liu Haifeng*, Comprehensive model with time limited wall reaction for entrained flow gasifier, Fuel 2016, 184: 118–127.
- (5) Xu Jianliang, Zhao Hui, Dai Zhenghua, Liu Haifeng*, Wang Fucheng, Numerical simulation of Opposed Multi-Burner gasifier under different coal loading ratio, Fuel 2016, 174: 97–106.
- (6) Fang Chenchen, Xu Jianliang, Zhao Hui, Li Weifeng, Liu Haifeng*. Influences of the wall thickness on the granular dispersion in a dense gas-solid coaxial jet. International Journal of Multiphase Flow, 2016, 81: 20–26.
- (7) Shen Zhongjie, Liang Qingfeng, Xu Jianliang, Liu Haifeng*. Modeling study for the effect of particle size on char gasification with CO₂, AIChE Journal, 2017, 63: 716–724.
- (8) Shen Zhongjie, Liang Qingfeng, Xu Jianliang, Zhang Binbin, Han Dong, Liu Haifeng*. In situ experimental study on the combustion characteristics of captured chars on the molten slag surface. Combustion and Flame, 2016, 166: 333–342.
- (9) 许建良, 陈雪莉, 刘海峰, 郭晓镭, 龚欣等, 含尘气体的混合器洗涤装置和混合器洗涤系统, 2015.8.19, 中国, ZL20131046 0114.X. (授权)
- (10) 许建良, 刘海峰, 代正华, 周志杰等, 一种气化炉耐火衬里, 2016.6.12, 中国, ZL201410150760.0. (授权)
- (11) 刘海峰, 许建良, 代正华, 龚欣, 于广锁等, 单喷嘴水煤浆气流床气化炉及其气化方法, 2015.9.23, 中国, ZL 201410181236.X. (授权)
- (12) 刘海峰, 许建良, 代正华, 李伟锋, 周志杰等, 多喷嘴分级给氧气流床气化炉及其气化方法, 2013.12.04, 中国, ZL201110074535.X. (授权)
- (13) 刘海峰, 代正华, 许建良, 周志杰等, 分级给氧气流床气化炉及其气化方法, 2013.12.04, 中国, ZL201110074535.X. (授权)
- (14) 许建良. 水冷壁气化炉温度检测软件, 登记号: 1382933. 开发完成时间: 2016.7.6.