



Profile

Working Experience:

2015.09- present: Associate Professor, East China University of Science and Technology

2013.03-2014.04: Visiting Scholar, University of Kentucky, USA.

2012.01-2012.04: Visiting Scholar, University of Kentucky, USA.

2009.03-2015.08: Lecturer, East China University of Science and Technology

Education experience:

2004.09-2009.03: Ph.D. East China University of Science and Technology, Chemical Technology.

2000.09-2004.07: Bachelor, Hebei University of Technology, Process Equipment and Control Engineering.

Honors and Awards:

2017 First Prize of China Petroleum and Chemical Industry Federation Science and Technology Progress Award, Ranking 7

2017 Second Prize of Shanghai Science and Technology Progress Award, Ranking 3

2015 Shanghai Pujiang Scholar.

Research Field

- (1) Entrained-flow coal water slurry gasification fundamental research and industrial application.
- (2) Gasification and combustion flame spectrum diagnosis.
- (3) Comprehensive utilization of solid products.

Research results and selected published papers

Research Project

- (1) U.S. Department of Energy, DOE-University of Kentucky Sub-project, 2017.11-2020.10, in charge
- (2) National key research and development project. 2017.7-2021.6. in charge
- (3) National Natural Science Foundation of China (NSFC), 2011.01-2013.12, in charge

[1] Huiwen Zhu, Chonghe Hu, Qinghua Guo*, Yan Gong, Guangsuo Yu*. Investigation on chemiluminescence and structure characteristics in CH₄/O₂ diffusion flames. *Experimental Thermal and Fluid Science*, 2019, 102: 595-602.

[2] Jiabao Yang, Huiwen Zhu, Qinghua Guo*, Yan Gong, Guangsuo Yu*. Dilution effects of N₂ and CO₂ on flame structure and reaction characteristics in CH₄/O₂ flames. *Experimental Thermal and Fluid Science*, 2019, 108: 16-24.

[3] Qinghua Guo, Zhiqing Zhang, Zhicun Xue, Yan Gong, Guangsuo Yu*, Fuchen Wang. Coal char particle secondary fragmentation in an entrained-flow coal-water slurry gasifier. *Journal of the Energy Institute*, 2019, 92: 578-586.

[4] Zhicun Xue, Yan Gong, Qinghua Guo*, Fuchen Wang, Guangsuo Yu*. Visualization Study on Breakup Modes of Coal Water Slurry in an Impinging Entrained-Flow Gasifier. *Fuel*, 2019, 244: 40-47.

[5] Juntao Wei, Yan Gong, Qinghua Guo*, Xueli Chen, Lu Ding, Guangsuo Yu*. A mechanism investigation of synergy behaviour variations during blended char co-gasification of biomass and different rank coals. *Renewable Energy*, 2019, 131: 597-605.

[6] Chonghe Hu, Yan Gong, Qinghua Guo*, Lei He, Guangsuo Yu*. Investigations of CH* Chemiluminescence and Blackbody Radiation in Opposed Impinging Coal-Water Slurry Flames Based on an Entrained-Flow Gasifier. *Fuel*, 2018, 221: 688-696.

[7] Chonghe Hu, Yan Gong, Qinghua Guo*, Lei He, Guangsuo Yu*. Alkalis atomic emission spectroscopy and flame temperature measurement of diesel impinging flames in an opposed multi-burner gasifier. *Experimental Thermal and Fluid Science*, 2018, 98: 45-453.

[8] Juntao Wei, Qinghua Guo*, Lu Ding, Kunio Yoshikawa, Guangsuo Yu*. Synergy Mechanism Analysis of Petroleum Coke and Municipal Solid Waste(MSW)-Derived Hydrochar Co-gasification. *Applied Energy*, 2017, 206: 1354-1363.

[9] Zhicun Xue, Qinghua Guo*, Yan Gong, Jianliang Xu, Guangsuo Yu*. Numerical study of a reacting single coal char particle with different pore structures moving in a hot O₂/CO₂ atmosphere. *Fuel*, 2017, 206: 381-389.

[10] Xudong Song, Qinghua Guo*, Chonghe Hu, Yan Gong, Guangsuo Yu*. Optical experimental study on the characteristics of impinging coal-water slurry flame in an opposed multi-burner gasifier. *Fuel*, 2017, 188: 132-139.

[11] Chonghe Hu, Yan Gong, Qinghua Guo*, Yifei Wang, Guangsuo Yu*. Experimental study on the spectroscopy of opposed impinging diesel flames based on a bench-Scale gasifier. *Energy & Fuels*, 2017, 31: 4469-4478.

[12] Xudong Song, Qinghua Guo*, Chonghe Hu, Yan Gong, and Guangsuo Yu*. OH* Chemiluminescence Characteristics and Structures of the Impinging Reaction Region in Opposed Impinging Diffusion Flames. *Energy & Fuels*, 2016, 30, 1428-1436.

[13] Chonghe Hu, Yan Gong, Qinghua Guo*, Xudong Song, Guangsuo Yu*. An experimental study on the spectroscopic characteristics in coal-water slurry diffusion flames based on hot-oxygen burner technology. *Fuel Processing Technology*, 2016, 154: 168-177.

[14] Qinghua Guo, Zhijie Zhou, Fuchen Wang, Guangsuo Yu*. Slag properties of blending coal in an industrial OMB coal water slurry entrained-flow gasifier. *Energy Conversion and Management*, 2014, 86: 683-688.

[15] Qinghua Guo, Yan Gong, Jianliang Xu, Guangsuo Yu*, Fuchen Wang. Particulate matter properties in a bench-scale entrained-flow coal water slurry gasifier. *Powder Technology*, 2014, 254: 125-130.

[16] Qinghua Guo, Yan Gong, Guangsuo Yu*, Tao Wang, Yi Ma, Zhuoyong Yan. Experimental study on a Hot Oxygen Burner in a bench-scale gasifier. *Chemical Engineering & Technology*, 2014, 37(3): 445-452.

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