



Profile

2006 year later: Professor in Department of Chemical Engineering for Energy;

2003-2006: Researcher in National Institute of Advanced Industrial Science and Technology, Japan;

1998-2003: Assistant Professor in Gunma University and Tohoku University, Japan;

1995-1998: Study for Ph. D in Tohoku University, Japan;

1994-1995: Research fellow in Tohoku University, Japan;

1988-1994: Assistant Professor and Lecturer in East China University of Science and Technology

1981-1988 Study for Bachelor and Master Degree in East China University of Science and Technology

Research Field

The research interests are on coal and biomass conversions, mainly including coal desulfurization and demineralization, trace elements in coal and biomass, catalytic coal gasification for production of hydrogen, low-rank coal hydropyrolysis/hyrogasification, and catalytic biomass thermochemical conversion.

Research results and selected published papers

Undertaking and accomplishing a few national research projects including “863” projects and Natural Science Funding projects.

More than 100 papers published in journals and meeting proceedings with over 50 papers published in top international journals in the energy field. Present paper cited number: over 2400; Present H-index: 28 (from Scopus).

Recent main papers: See above.

- (1) Nan Zheng, Jie Wang. Distinctly different performances of two iron-doped charcoals in catalytic hydrocracking of pine wood hydropyrolysis vapor to methane or upgraded bio-oil. *Energy Fuels* 2020 (in press). <https://doi.org/10.1021/acs.energyfuels.9b03452>.
- (2) Chunyu Wang, Nan Zheng, Shiqi Wan, Jie Wang. Assessment of the modes of occurrence of trace elements in agricultural crop residues and their enrichments and bioavailability in bio-chars. *Biomass Conversion and Biorefinery* 2020 (in press). <https://doi.org/10.1007/s13399-019-00597>.
- (3) Feng Mao, Haojie Fan, Jie Wang. Biogenic oxygenates in lignite pyrolysis tars and their thermal cracking revealed by two-dimensional gas chromatograph/time-of-flight mass spectrometry (GC×GC-MS). *Journal of Analytical and Applied Pyrolysis* 139 (2019) 213-223.
- (4) Yiwei Jiang, Haibo Yan, Qinghua Guo, Fuchen Wang, Jie Wang. Multiple synergistic effects exerted by coexisting sodium and iron in catalytic steam gasification of coal char. *Fuel Processing Technology* 191 (2019) 1-10.
- (5) Shiqi Wan, Nan Zheng, Jie Zhang, Jie Wang. Role of neutral extractives and inherent active minerals in pyrolysis of agricultural crop residues and bio-oil formations. *Biomass and Bioenergy* 122 (2019) 53-62.
- (6) Xuantao Wu, Jie Wang. Intrinsic kinetics and external diffusion of catalytic steam gasification of fine coal char particles under pressurized and fluidizing conditions. *Frontiers of Chemical Science and Engineering* 13 (2019) 415-426.