

## CURRICULUM VITAE

### ZHU YUEZHAO

College of Mechanical and Power Engineering  
Nanjing Tech University  
Nanjing, China  
Email: zyz@njut.edu.cn



### Research Interests

**Biomass AND Organic Wastes disposal and resource utilization:** Biomass thermal chemical conversion, biomass gas steam boiler and power generation, organic wastes thermal chemical conversion (pyrolysis, gasification), supercritical water oxidation technology, etc.

**Solar thermal and high efficient heat transfer device:** Compound parabolic solar collector and parabolic trough collector, solar thermal (high temperature) and chemical recycling technology (Hydrogen production), heat pipe technology for geothermal, solar thermal and heat storage applications, etc.

### Professional Experience

**Professor**, School of Mechanical and Power Engineering, Nanjing University of Chemical Engineering, 2005-

**Deputy Party Secretary**, NanjingTech University, 2013-2018

**Vice President**, Nanjing University of Technology, 2001-2012

**Associate Professor**, 1995-2005

**Teaching Assistant**, Nanjing Institute of Chemical Engineering, 1982-1992

### Education

#### Ph.D.

Chemical Process Machinery, College of Mechanical and Power Engineering, Nanjing University of Technology, 2008

#### Master Degree

Philosophy of Science and Technology, College of Humanities, Nanjing Agricultural University, 2005;

Chemical Process Machinery, College of Mechanical and Power Engineering, Nanjing Institute of Chemical Engineering, 1992

#### Bachelor Degree

Chemical Process Machinery, College of Mechanical and Power Engineering, Nanjing Institute of

Chemical Engineering, 1982

**Honors/Awards**

- Second prize of national technological invention Award
- Technology advancement award of Sinopec Group
- Nanjing technology advancement award
- Member of drying technology expert committee of Chemical Industry and Engineering Society of China
- Vice-chairman commissioner of expansion joint committee of Chinese Mechanical Engineering Society

**Research project**

- [1] Key technologies and demonstration of fully renewable energy multi-energy (Heat, Electricity and Gas) supply system in the characteristic town of China. National Key R&D Program, 2018YFB1502900, ¥18,180,000 (2019-2022)
- [2] Research and demonstration on key technologies of integration and high Efficiency of renewable energies in construction. National twelfth-five year science and technology support program, 2014BAJ01B00, ¥24,800,000 (2014-2016)
- [3] Research on heat transfer mechanism and performance of solar high temperature thermochemical coupled phase change reactor. National Natural Science Foundation of China, 51276086, ¥800,000 (2014-2016)
- [4] Technology and equipment for hydrogen gas production: high humidity sludge movable bed high temperature pyrolysis technology. High Technology Research and Development Program of Jiangsu Province of China, BE2013127, ¥600,000 (2013-2016)
- [5] Research and development of key technologies and demonstration for solar-biomass energy coupled air conditioning system. Special funds of Jiangsu Province government of China, Department of Finance & Department of Construction of Jiangsu Province [2008]No.284, ¥7,840,000 (2008-2011)

**Publications**

- [1] Yuezhao Zhu , Chuanhua Liao , Chongqing Wang , Tingfeng Zhu. Emission Reduction and Resource Utilization of Carbon Dioxide [M], Chemical Industry Press , Beijing , 2010
- [2] Yuezhao Zhu , Yongchun Shi, Chuanhua Liao. Heat transfer process and equipment [M], Sinopec Press , Beijing , 2008
- [3] Yuezhao Zhu , Jining Wang , Hongxi Chen. Nanjing Experience: Driving Mechanism and

- Supporting System of Technological Innovation [M]. Economic Management Press, Beijing, 2013.
- [4] Yuezhao Zhu, Yinfeng Wang, Haijun Chen. Solar medium and high temperature loop heat pipe steam generator [P]. Chinese Patent: ZL201410535919.0, 2016-04-13.
  - [5] Yuezhao Zhu, Yinfeng Wang, Jiahui Xu. A medium temperature single pass all glass parabolic trough receiver [P]. Chinese Patent: ZL201410348597.9, 2016-04-13.
  - [6] Yuezhao Zhu, Tingting Ma, Haijun Chen. Solar High Temperature Thermochemical Coupled Phase Change Reactor [P]. Chinese Patent: ZL201210256968.1, 2014-04-09.
  - [7] Yuezhao Zhu, Haijun Chen, Juan Wu. Technology and system of deep tar removal by coupled adsorption of biomass and gas [P]. Chinese Patent: ZL201210037246.7, 2013-12-25.
  - [8] Yuezhao Zhu, Lei Ma, Chuanhua Liao. A Waste tire gasification device and method [P]. Chinese Patent: ZL201010149984.1, 2013-07-24.
  - [9] Yuezhao Zhu, Huiqin Dingyang, Chuanhua Liao. Tar treatment system and method for biomass gasification [P]. Chinese Patent: ZL201110105926.3, 2013-06-05.
  - [10] Yuezhao Zhu, Wenzhen Liu. A Pyrolysis Method for Municipal Waste [P]. Chinese Patent: ZL200810122703.6, 2010-07-21.
  - [11] Xiaoyuan Wang, Yinfeng Wang, Haijun Chen, Yuezhao Zhu. A combined CFD/visualization investigation of heat transfer behaviors during geyser boiling in two-phase closed thermosyphon[J]. International Journal of Heat and Mass Transfer, 2018,121:703-714.
  - [12] Xiaoyuan Wang, Yinfeng Wang, Zhi Wang, Yuxuan Liu, Yuezhao Zhu, Haijun Chen. Simulation-based analysis of a ground source heat pump system using super-long flexible heat pipes coupled borehole heat exchanger during heating season[J]. Energy Conversion and Management, 2018, 164:132-143.
  - [13] Jinjiao Zhu, Ye Yang, Ying Chen, Li Yang, Yinfeng Wang, Yuezhao Zhu, Haijun Chen. Co-pyrolysis of textile dyeing sludge and four typical lignocellulosic biomasses: Thermal conversion characteristics, synergetic effects and reaction kinetics[J]. International Journal of Hydrogen Energy, 2018,43(49): 22135-22147.
  - [14] Xiaoyuan Wang , Yalu Zhu , Yuezhao Zhu , Hongtu Fan , and Yinfeng Wang. Thermal analysis and optimization of an ice and snow melting system using geothermy by super-long flexible heat pipes[J]. Applied Thermal Engineering. 2017, 112: 1353-1363.
  - [15] Yinfeng Wang, Li Yang, Xiaoyuan Wang, Haijun Chen, Hongtu Fan, Robert A. Taylor, Yuezhao Zhu. CFD simulation of an intermediate temperature, two-phase loop thermosiphon for use as a linear solar receiver[J]. Applied Energy, 2017, 207: 36-44.
  - [16] Yinfeng Wang, Beibei Lu, Haijun Chen, Hongtu Fan, Robert Taylor, and Yuezhao Zhu. Experimental investigation of the thermal performance of a horizontal two-phase loop thermosiphon suitable for solar parabolic trough receivers operating at 200-400 °C[J]. Energy, 2017, 132: 289-304.

- [17] Yinfeng Wang, Xiaoyuan Wang, Haijun Chen, Robert A. Taylor, and Yuezhao Zhu. A combined CFD/visualized investigation of two-phase and heat and mass transfer inside a horizontal loop thermosiphon [J]. *International Journal of Heat and Mass Transfer*, 2017, 112: 607-619.
- [18] Yinfeng Wang, Yuezhao Zhu, Haijun Chen, Li Yang, and Moucun Yang. Thermal Performance of a Single-Pass All-Glass Parabolic Trough Receiver [J]. *Journal of Energy Engineering*, 2016, 04016029.
- [19] HaiJun Chen, Juan Wu, XiaoYuan Wang, Yuezhao Zhu. Simulated biomass tar removal mechanism and performance by a Quench Coupled with ABSorption Technology[J]. *Fuel Processing Technology*, 2016, 146: 90-98. (SCI)
- [20] Yinfeng Wang, Yuezhao Zhu, Haijun Chen, Xin Zhang, Li Yang, and Chuanhua Liao. Performance analysis of a novel sun-tracking CPC heat pipe evacuated tubular collector [J]. *Applied Thermal Engineering*, 2015, 87: 381-388.