

## Resume of Hanping Chen

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### **Present employment:**

1. Head of Dept. of New Energy Science and Engineering in Huazhong University of Science and Technology (HUST)
2. Deputy director of State Key Laboratory of Coal Combustion
3. Deputy director of National Energy R&D Center of Biomass Gas Preparation & Utilization Technology.

### **Research areas:**

High-efficiency conversion and high-value added comprehensive utilization for solid fuel such as coal, biomass, fluidized bed, bio-char, gasification, pyrolysis, combustion

### **Honors:**

2014 Second-class Award of National Science and Technology Progress. (the first completed person)

2014 Blue Sky Award of Global Top Investment Scenarios to Apply New Technology for Renewable Energy Utilization. (the first completed person)

2013 National Overseas Chinese Contribution Award (Innovation Project)

2009 Award of Excellent Young Teacher Sustentation Program by National Education Ministry

### **Paper published:**

1. Application of biomass pyrolytic polygeneration technology using retort reactors. Liu Biao, Chen Yingquan, Yang Haiping, Chen Wei, Yang Qing, Chen Hanping. *Bioresource Technology*, 2016, 200: 64-71
2. Greenhouse gas emissions of a biomass-based pyrolysis plant in China. Yang Qing, Han Fei, Chen Yingquan, **Yang Haiping**\*, Chen Hanping. *Renewable and Sustainable Energy Reviews*, 2016, 53: 1580-1590.
3. Fusion and transformation properties of the inorganic components in biomass ash. SL Du, **HP Yang**\*, KZ Qian, XH Wang, HP Chen. *Fuel*, 2014, 117, Part B : 1281-1287
4. Effect of catalysts on the reactivity and structure evolution of char in petroleum coke steam gasification. Y Li, **HP Yang**\*, JH Hu, XH Wang, HP Chen. *Fuel*, 2014, 117, Part B : 1174-1180
5. Torrefaction of agriculture straws and its application on biomass pyrolysis poly-generation. YQ Chen, **HP Yang**\*, Q Yang, HM Hao, B Zhu, H Chen.

- Bioresource Technology, 2014, 156: 70–77
6. Evolution of functional groups and pore structure during cotton and corn stalks torrefaction and its correlation with hydrophobicity. YQ Chen, Biao Liu, **HP Yang\***, Q Yang, H Chen *Fuel*, 2014, 137: 41-48.
  7. Hydrogen production from catalytic reforming of the aqueous fraction of pyrolysis bio-oil with modified Ni/Al catalysts. DD Yao, CF Wu, **HP Yang\***, Q Hu, MA Nahil, HP Chen, P T. Williams. *International J. of Hydrogen Energy*, 2014,39:14642-14652,
  8. The enhancing mechanism of calcium oxide on water gas shift reaction for hydrogen production. B Li, LY Wei, **HP Yang\***, XH Wang , HP Chen. *Energy*, 2014, 68 :248-254
  9. Fractional condensation of multicomponent vapors from pyrolysis of cotton stalk. HQ Sui, **HP Yang\***, JA Shao, XH Wang, YC Li, HP Chen. *Energy& Fuels*, 2014, 28(8): 5095-5102
  10. Characteristics of the Temperature Distribution and Product Gas Evolving of an Updraft Biomass Gasifier. Bin Li , HP Chen , **HP Yang\***, XH Wang Shihong Zhang. *Energy Fuels*, 2013, 27 (3), pp 1460–1465
  11. Assessment of pyrolysis polygeneration of biomass based on major components: Product characterization and elucidation of degradation pathways. S Xin, **HP Yang\***, Y Chen, X Wang, H Chen. *Fuel*, 2013,13, 266–273
  12. Influence of NH<sub>3</sub>/CO<sub>2</sub> Modification on the Characteristic of Biochar and the CO<sub>2</sub> Capture. X Zhang, S Zhang, **HP Yang\***, Tao S, Y Chen. *BioEnergy Research*, 2013, 6, (4):1147-1153
  13. Biomass-Based Pyrolytic Polygeneration system on Cotton Stalk Pyrolysis: Influence of Temperature. YQ Chen, **HP Yang\***, XH Wang, HP Chen, SH, Zhang. *Bioresource Technology* 2012, 107: 411–418
  14. Modeling and Simulation of Calcium Oxide Enhanced H<sub>2</sub> Production from Steam Gasification of Biomass. Li Bin, Chen Hanping\*, Yang Haiping, Wang Xianhua, Zhang Shihong, Dai Zhenghua. *Journal of Biobased Materials and Bioenergy*, 5(3), pp 378-384, 2011.
  15. Characteristics of the Temperature Distribution and Product Gas Evolving of an Updraft Biomass Gasifier. Li Bin, Chen Hanping, Yang Haiping\*, Wang Xianhua, Zhang Shihong. *Energy & Fuels*, 27(3), pp 1460-1465, 2013.
  16. Novel bi-functional Ni–Mg–Al–CaO catalyst for catalytic gasification of biomass for hydrogen production with in situ CO<sub>2</sub> adsorption. Mohamad A. Nahil, Wang Xianhua, Wu Chunfei, Yang Haiping, Chen Hanping\*, Paul T. Williams\*. *RSC Advances*, 3(16), pp 5583-5590, 2013.
  17. A study of non-isothermal kinetics of limestone decomposition in air (O<sub>2</sub>/N<sub>2</sub>) and oxy-fuel (O<sub>2</sub>/CO<sub>2</sub>) atmospheres. Tian Luning, Chen Hanping\*, Chen Zhenhui, Wang Xianhua, Zhang Shihong. *Journal of Thermal Analysis and Calorimetry*, 115(1), pp 45-53, 2014.
  18. Effect of residence time on chemical and structural properties of hydrochar obtained by hydrothermal carbonization of water hyacinth. Gao Ying, Wang Xianhua\*, Wang Jun, Li Xiangpeng, Cheng Jianjun, Yang Haiping, Chen Hanping. *Energy*, 58, pp 376-383, 2013.
  19. Upgrading of bio-oil: Removal of the fermentation inhibitor (furfural) from the model compounds of bio-oil using pyrolytic char. Li Yunchao, Shao Jingai, Wang Xianhua\*, Yang Haiping, Chen Yingquan, Deng Yong, Zhang Shihong, Chen Hanping. *Energy & Fuels*, 2013,27(10): 5975-5981.

20. Combustion behaviours of tobacco stem in a thermogravimetric analyser and a pilot-scale fluidized bed reactor. Yang Zixu, Zhang Shihong\*, Liu Lei, Li Xiangpeng, Chen Hanping, Yang Haiping, Wang Xianhua. *Bioresource technology*, 2012, 110: 595-602.
21. Biomass-based pyrolytic polygeneration system on cotton stalk pyrolysis: influence of temperature. Chen Yingquan, Yang Haiping\*, Wang Xianhua, Zhang Shihong, Chen, Hanping. *Bioresource technology*, 2012, 107: 411-418.
22. Characterization of products from hydrothermal treatments of cellulose. Gao Ying, Wang Xianhua\*, Yang Haiping, Chen Hanping. *Energy*, 2012, 42(1):457-465.