Curriculum Vitae

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Zhiqiang Wang

Ph.D., Associate Professor School of Mechanical Engineering, Tianjin University of Commerce, Tianjin, China

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Education

Syracuse University, Syracuse, New York, USA

Ph.D., Mechanical and Aerospace Engineering, August 2011

Tianjin University, Tianjin, China

M.S., Heating, Ventilating and Air-Conditioning Engineering, March 2007

Tianjin University, Tianjin, China

Bachelor of Building Environment and Equipment Engineering, June 2003

Principal Fields of Interests

Indoor Air Pollutant Control, Air Cleaning Technology, Building Energy Conservation

Experience

Associate Professor, School of Mechanical Engineering, Tianjin University of Commerce, Tianjin, China, Dec. 2016 to present

Associate Research Fellow, School of Environmental Science and Engineering, Tianjin University, Tianjin, China, Sep. 2014 to Nov. 2016

Postdoc, School of Environmental Science and Engineering, Tianjin University, Tianjin, China, May 2012 to Aug. 2014

Project Manager, Built Environment (Tianjin) Technology Co., Ltd., May 2012 to Nov. 2016

Project Technical Manager, Shenzhen Institute of Building Research, Shenzhen, China, Sep. 2011 to Apr. 2012

Awards

- Nov.2017, Tianjin "Young and middle-aged backbone innovative talents", Funding support: ¥450,000
- Jan.2017, Tianjin **"131 innovative talents training project Second level candidate**", Funding support: ¥100,000

Teaching Courses

Built Environment, Heat and Mass Transfer

Research Projects

- 1. Sub-project of the 13th five-year air pollution control key project from China's ministry of science and technology, Rapid detection, formation mechanism and intervention technology of indoor public pollutants, Project No.: 2016YFC0207101, 2016/07-2020/06, Funding of \$Y790,000\$, In progress, PI
- 2. The scientific funding project for junior researcher of China's national natural science foundation, Performance and mechanism of sorbent-based botanical filtration for indoor air purification, Project No.: 51308382, 2014/01-2016/12, Funding of ¥250,000, Finished, PI
- 3. The scientific funding project for senior researcher of China's national natural science foundation, Research on correlation characteristics between indoor semi-volatile organic compounds and particles influenced by ventilation, Project No.: 51678397, 2017/01-2020/12, 6 Funding of Y620,000, In progress, Co-PI
- 4. Industrial cooperation R&D project, Cooperative development of low-noise ceiling type purification equipment, 2015/5-2015/12, Funding of ¥250,000, Finished, Co-PI
- 5. Industrial cooperation R&D project, Energy-saving optimization control system of refrigeration machine room for Smic international IC manufacturing (Tianjin) co. LTD, 2015/3-2020/3, In progress, Participant
- 6. Industrial cooperation R&D project, Air quality assessment of Tianjin university's new campus dormitory and classroom, 2015/1-2015/12, Finished, Participant
- 7. Industrial cooperation R&D project, Siemens China PM2.5 control project, 2014/7-2015/5, Finished, Participant
- 8. Industrial cooperation R&D project, Vanke pilot project research on indoor environment quality of healthy residential buildings in China, 2012/12-2013/8, Finished, Participant
- 9. Industrial cooperation R&D project, Ventilation window and ventilator development, 2013/12-2014/12, Finished, Participant

Publications

 Zhiqiang Wang, Jingjing Pei, Jensen S. Zhang, Experimental Investigation of the VOC Removal Mechanisms in a Dynamic Botanical Filtration System for Indoor Air Purification, Journal of Hazardous Materials 280(2014) 235-243

- 2) Jiayu Li, Yuefei Hou, Junjie Liu, Zhiqiang Wang, Fei Li, Window purifying ventilator using a cross-flow fan: Simulation and optimization, Building Simulation: An International Journal, 2016 March
- 3) Chaobin Zhou, Zhiqiang Wang*, Qingyan Chen, Yi Jiang, Jingjing Pei, Design optimization and field demonstration of natural ventilation for high-rise residential buildings, Energy and Buildings 82 (2014) 457–465
- 4) Zhiqiang Wang, Jingjing Pei, Jensen S. Zhang, Catalytic oxidization of indoor formaldehyde at room temperature-effect of operation conditions, Building and environment65 (2013) 49-57
- 5) Zhiqiang Wang, Jingjing Pei, Jensen S. Zhang, Modeling and simulation of an activated carbon-based botanical air filtration system for improving indoor air quality, Building and Environment 54(2012) 109-115
- 6) Zhiqiang Wang*, Jensen S. Zhang, Characterization and performance evaluation of a full-scale activated carbon-based dynamic botanical air filtration system for improving indoor air quality, Building and Environment 46(3) (2011) 758-768
- 7) 周朝斌,王志强*,吴尘,姜漪,楼栋开槽及双窗设计在重庆高层住宅的应用及自然通风实测与分析,暖通空调HV&AC,2014年第44卷第9期
- 8) Zhiqiang WANG*, Chaobin ZHOU, Yi JIANG, John D. SPENGLER, The Investigation of Indoor Air Quality at High-rise Residential Buildings in China: a Pilot Study, Proceedings of Indoor air 2014
- W. Huang, Z. Wang, G. Choudhary, B. Guo, J.S. Zhang, D. Ren, Characterization of microbial species in a regenerative bio-filter system for VOC removal, HVAC & R journal. 18(1-2) (2012) 169-178
- 10) J.S. Zhang, Z. Wang, D. Ren, Botanical Air Filtration for Improving IAQ: Myths and Facts, ASHRAE Journal 52(12)(2010): 138-140
- 11) Huang W, Wang Z, Choudhary G, Guo B, Zhang J, Ren D. Characterization of Microbial Species in a Regenerative Bio-filter System for VOC Removal. Proceedings of IAQVEC 2010—the 7th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, August 15-18, Syracuse, NY, USA. Paper 104-133
- 12) Wang, Z., J. Pei, J. Zhang, D. Ren. 2010. Modeling and Simulation of an Activated Carbon-based Botanical Air Filtration System for Improving Indoor Air Quality. Proceedings of Clima 2010, Antalya Turkey, May 9-12
- 13) Wang Z, Zhang JS, Mittelmark M, Wolverton BC. Performance evaluation and demonstration of an activated carbon based botanical air filtration system. Proceedings of

- Healthy Building 2009. Paper.564
- 14) Liu, Jun-Jie; Wang, Zhi-Qiang; Pei, Jing-Jing. Ambient air quality measurement and assessment of a residential habitation. Journal of Harbin Institute of Technology (New Series). Vol. 14, 2007: 221-223
- 15) 刘俊杰,王志强,孙骏,用计数法测量玻璃纤维滤纸穿透率的研究,中国造纸,2007年第26 卷第6期:23-26页
- 16) 刘俊杰,王志强,新风预热器混水系统的分析设计选型,流体机械,2007年第35卷第9期:65-69 页
- 17) 刘俊杰,王志强,高效率空气滤清器过滤性能测试分析研究,流体机械,2007年第35卷第7期:10-14页
- 18) 刘俊杰,王斌,赵歆治,王志强,负压隔离病房压力控制中存在的问题,暖通空调,2006年 第36卷第5期