



Profile

Professor Wang Hualin, doctoral supervisor, Distinguished Professor of Yangtze River Scholars, Head of Innovative Research Team for Pollutant Emission Reduction and Resource Utilization of National Ministry of Science and Technology, Deputy Director of National Engineering Laboratory for Industrial Wastewater Treatment, Director of China Flue Gas Desulfurization Center. Professor Wang received doctor degree in East China University of science and technology in 1995, and visited several scientific research institutions overseas as visiting scholar, including the Department of Civil Engineering and Environment in University of Nottingham, UK. Over the past 20 years, Professor Wang has been focusing on the national strategic industry of methanol to olefin (MTO) and the environmental protection demand of the national basic raw material industry of quality upgrade of gasoline and diesel, discovered phenomena of fine particle high speed self-rotation in the three-dimensional turbulent flow in hydrocyclone, and established methods and equipment of chemical pollutant separation by physical treatment. Professor Wang has realized the breakthrough of "high speed self-rotation of particles" from phenomenon discovery to engineering application and has developed new technologies for pollutant source control and recycle by physical methods, which have been applied to major petrochemical production units over the globe.

Research Field

Theory and Design of Physical Separation、Source Control and Recycle of Pollutants、Environment and Energy Technology

Research results and selected published papers

Over 110 research papers by Professor Wang have been published, and 66 patents from Professor Wang's research were authorized in China and overseas, and presided over the drafting of one new recommended national standard and two industry standards. Some of the findings and applications were included in Handbook of Spent Hydroprocessing Catalysts (Second Edition) by Edward Furimsky in Canada. Professor Wang has been rewarded two Second Class of the State Technological Innovation Award (ranked 1st, 1st) and two Second Class of the State Science and Technology Advancement Awards (ranked 1st, 6th). Representative research papers as follows:

- 1、Hualin Wang, Pengbo Fu, Jianping Li, et al. Separation-and-Recovery Technology for Organic Waste Liquid with a High Concentration of Inorganic Particles. Engineering, 2018, 4: 406-415.
- 2、Yinxiang Xu, Yuanyuan Fang, Zhenhua Wang, Dan Guo, Yi Liu, Yuan Huang, Pengbo Fu, Juehui Jin, Chenwen Wei, Hualin Wang*, Tao Zeng, In-situ sludge reduction and carbon reuse in an anoxic/oxic process coupled with hydrocyclone breakage. Water research, 2018, 141, 135-144.
- 3、Peng-Bo Fu, Hua-Lin Wang*, Jian-Ping Li, Yuan Huang, Yi-Lin Fang, Wei Yuan, Xiang-Chen Fang, Li-Quan Li, Zhao-Hui Huang, Lai Jiang. Cyclonic gas stripping deoiling and gas flow acceleration classification for the resource utilization of spent catalysts in residue hydrotreating process. Journal of Cleaner Production, 2018, 190: 689-702.
- 4、Pengbo Fu, Fei Wang, Xuejing Yang, Liang Ma, Xin Cui, Hualin Wang*, Inlet Particle-Sorting Cyclone for the Enhancement of PM2.5 Separation. Environmental Science & Technology. 2017, 51: 1587-1594.
- 5、Jiangang Wang, Zhi-shan Bai, Qiang Yang, Yi Fan, Hua-lin Wang. Investigation of the simultaneous volumetric 3-component flow field inside a hydrocyclone. Separation and Purification Technology, 2016,163 :120-127.
- 6、Hao Lu, Giang Yang, Xiao Xu, Hua-Lin Wang. Effect of mixed oleophilic fibrous coalescer geometry and operating conditions on oily wastewater separation. Chemical Engineering & Technology, 2016, 39: 255-262.
- 7、Cong Huang, Wenjie Lv, Jian-gang Wang, Junye Wang, Hua-lin Wang. Uniform distribution and parameter sensitivity for UU-type mini-hydrocyclone group. Separation and Purification Technology. 2014, 125: 194-201.