

Prof. Yao-Hui Huang

黃耀輝 教授

Ph.D. : Department of Chemical Engineering,  
National Cheng Kung University

Email : yhhuang@mail.ncku.edu.tw

Phone : 886-6-2757575 ext 62636

Office : Room No.93B07 (11F)

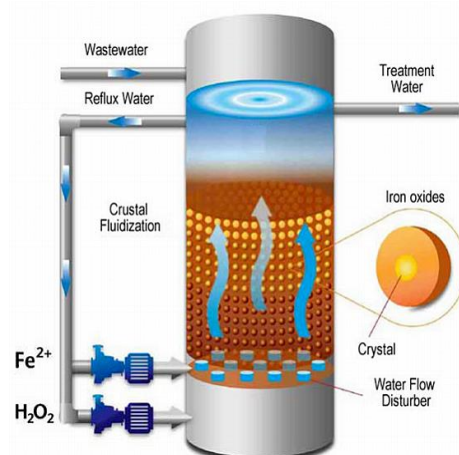
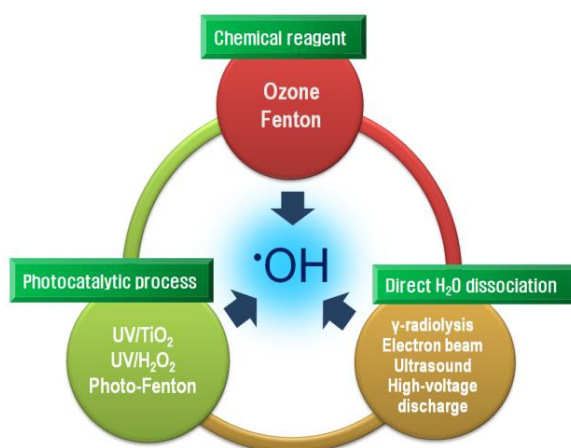


### Research Interests

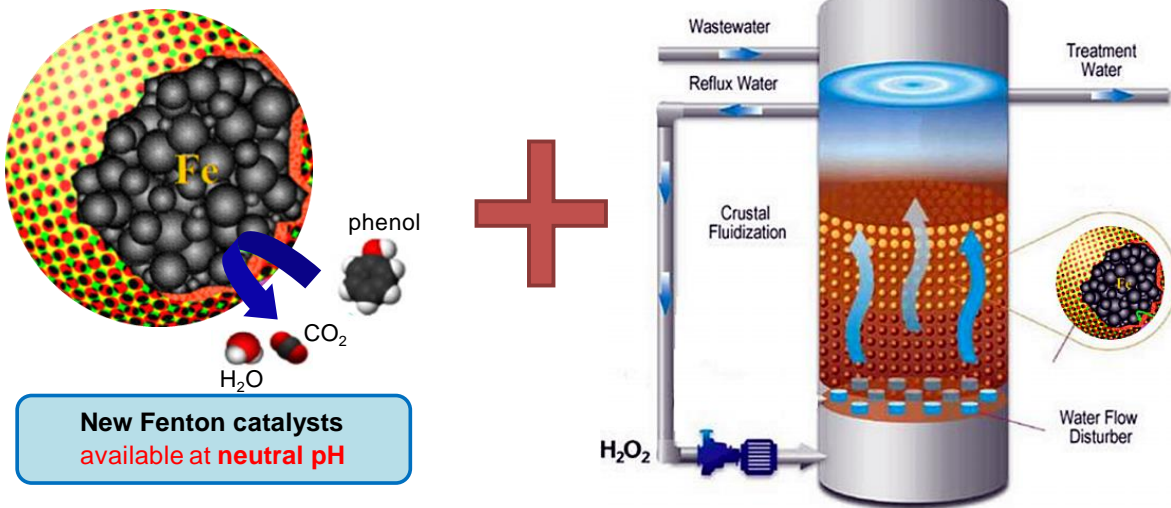
I focus my research on a lot of industrial wastewater treatment plants that requires additional high-level wastewater processing units to achieve the effluent standards of the local government. My research area includes: Advanced Oxidation Processes (AOPs), Fluidized Bed Homogeneous Crystallization (FBHC) Technology, Wastewater Treatment and Reclamation, Fenton family processes.

### Representative Publications

1. Jui-Yen Lin, Yu-Jen Shih, Po-Yen Chen, **Yao-Hui Huang\*** (2016), Precipitation recovery of boron from aqueous solution by chemical oxo-precipitation at room temperature, Applied Energy, APEN-164()1052-1058. (SCI, IF=5.261)
2. Y. Wang, R. Priambodo, **Hui Zhang\***, and **Yao-Hui Huang\*** (2015), Degradation of Azo Dye Orange G in fluidized bed reactor using iron oxide as a heterogeneous photo-Fenton catalyst, RSC Advances, 5, 45276-45286. (SCI, IF=3.840)
3. Yang Lei, Chuh-Shun Chen, Yao-Jen Tu, **Yao-Hui Huang\***, and **Hui Zhang\*** (2015), Heterogeneous degradation of organic pollutants by persulfate activated by CuO-Fe<sub>3</sub>O<sub>4</sub>: mechanism, stability, effects of pH and bicarbonate ions, Environmental Science & Technology, 49, 6838-6845. (SCI, IF=5.481)
4. C-S. Chen, Y-J. Shih, **Yao-Hui Huang\*** (2015), Remediation of lead (Pb(II)) wastewater through recovery of lead carbonate in a fluidized-bed homogeneous crystallization (FBHC) system, Chemical Engineering Journal, 279, 120-128. (SCI, IF=4.32)
5. Yu-Jen Shih, Re-Lin Huang, **Yao-Hui Huang\*** (2015), Adsorptive removal of arsenic using a novel akhtenskite ( $\epsilon$ -MnO<sub>2</sub>) coated waste goethite ( $\alpha$ -FeOOH), Journal of Cleaner Production, 87, 897-905. (SCI, IF=3.59)



Classifications of advanced oxidation technologies (left) and diagram of the FBR-Fenton Reactor (right)



Scheme for developing a new FBR Fenton process



Mechanism change on new heterogeneous Fenton catalysts (left) and scale-up example of FBR reactor (right)



Full scale of FBR Fenton processes using heterogeneous Fenton catalysts