

## VITAE



**Name:** Yen-Hui Lin

**Current Position:** Professor, Ph.D, P.E.

**Institution:** Department of Safety, Health and Environmental Engineering,  
Central Taiwan University of Science and Technology

**Address:** 666, Bu-zih Road, Bei-tun District, Taichung 40601, Taiwan

### Researchn Interests

My primary study included the design and implementation of fixed-biofilm process for simultaneous removal of multiple contaminants in industrial wastewater, and development of the kinetic model to simulate the performance of biofilm process. Recent research has emphasized on azo-dye decolorization in a biological activated carbon process and chromium(VI) bioreduction by *E. coli* 33456 on chitosan beads. Simultaneous removal of phenol and chromium(VI) in an anaerobic fixed-biofilm process was also investigated. A novel moving-fixed bed biofilm reactor was developed to remove organic carbon and ammonium-nitrogen simultaneously. The valuable biohydrogen production from food processing wastewater using newly developed high-rate anaerobic wastewater treatment technologies was conducted. Moreover, Conversion of CO<sub>2</sub> into CH<sub>4</sub> by methane-producing bacterium under a pressurized condition was evaluated in the batch tests. Bioleaching technologies have also applied to recover the heavy metals from industrial waste sludge by indigenous *Acidithiobacilli*. Current funded research projects include removal of textile wastewater by using fly ash-chitosan composite supporting media in fluidized-bed bioreactor and the removal of organic carbon and ammonium-nitrogen in leachate using fly ash-waste sludge-clay as a composite supporting medium in a oxic/anoxic biofilm reactor.

### Education

Ph.D., Civil/Environmental Engineering  
University of Wisconsin-Milwaukee, Milwaukee, WI, USA  
January, 1996–May, 1998

M.S., Environmental Engineering  
National Cheng Kung University, Tainan, Taiwan

August, 1985–May, 1987

B.S., Environmental Engineering

National Cheng Kung University, Tainan, Taiwan

August, 1981–May, 1985

### **Work Experience**

Engineer, Industrial Technology Research Institute, Taiwan

July, 1989–November, 1989

Engineer, Agency of Environmental Protection in Taiwan Provincial Government, November, 1989–July, 1992

Research Fellow, Development Center of Biotechnology, Taiwan, September, 1998–July, 2004

Assistant Professor, Department of Safety, Health and Environmental Engineering, Central Taiwan University of Science and Technology, August, 2004–January, 2008

Associate Professor, Department of Safety, Health and Environmental Engineering, Central Taiwan University of Science and Technology, February, 2008–Present

### **Session chairperson**

5th IWA-ASPIRE Conference & Exhibition 2013, Daejeon, Korea, September 8-12, 2013.

### **Journal reviewer**

Journal of Hazardous Materials, Water Science and Technology, Journal of Environmental Management, Separation and Purification Technology, Water Environment Research, Bioresource Technology, Journal of Biotechnology

### **Scientific Associations**

International Water Association (IWA)

### **Who's Who**

Marquis Who's Who in Asia, 1st edition, 2007

Marquis Who's Who in the World, 25 edition, 2008

## **Publication**

**Yen-Hui Lin\*** (2013) Modeling chromium(VI) reduction by *Escherichia coli* 33456 using ceramic pearl as a supporting medium. International Journal of Environmental Science and Technology, In Revision (NSC 96-2221-E-166-004-MY2) (SCI 2011, Impact Factor = 3.051, Ranking = 36/205, Environmental Sciences)

Jyh-Yih Leu, **Yen-Hui Lin\*** (2013) Optimization of nutritional composition of growth medium for *Chlorella* sp. FJ3 growth kinetics in batch and continuous-flow photoreactors. **Environmental Technology**, In Press (EPA-93-E1U4-04-002) (SCI 2011, Impact Factor=1.406, Ranking=116/205, Environmental Sciences)

**Yen-Hui Lin\***, Wen-Fan Lin, Kai-Ning Jhang, Pei-Yu Lin, Mong-Chuan Lee (2013) Adsorption with biodegradation for decolorization of reactive black 5 by *Funalia trogii* 200800 on a fly ash-chitosan medium in a fluidized bed bioreactor-kinetic model and reactor performance. **Biodegradation**, 24(1), 137-152, February 2013 (NSC 98-2221-E-166-001-MY2) (SCI 2011, Impact Factor = 2.017, Ranking = 80/157, Biotechnology & Applied Microbiology)

**Yen-Hui Lin\*** (2012) Molecular weight distribution of organic matter by ozonation and biofiltration. **Water Science and Technology**, 66(12), 2604-2612, December 2012 (SCI 2011, Impact Factor = 1.050, Ranking = 67/133, Water Resources)

**Yen-Hui Lin\***, Hong-Xiang Zheng, Mu-Ling Juan (2012) Biohydrogen production using waste activated sludge as a substrate from fructose-processing wastewater treatment. **Process Safety and Environmental Protection**, 90(3), 221-230, May 2012 (SCI 2011, Impact Factor = 1.050, Ranking = 67/133, Engineering, Chemical)

Jyh-Yih Leu, **Yen-Hui Lin\***, Fuh-Long Chang (2011) Conversion of CO<sub>2</sub> into CH<sub>4</sub> by methane-producing bacterium FJ10 under a pressurized condition. **Chemical Engineering Research and Design**, 89(9), 1879-1890, September 2011 (EPA-95-E1U4-008) (SCI 2011, Impact Factor = 1.968, Ranking = 39/133, Engineering, Chemical)

**Yen-Hui Lin\***, Chih-Lung Wu, Hsin-Lung Li, Chih-Hao Hsu (2011) Verification of model for adsorption and reduction of chromium (VI) by *Escherichia Coli* 33456 using chitosan bead as a supporting medium. **Applied Mathematical Modelling**, 35(6), 2736-2751, June 2011 (NSC 96-2221-E-166-004-MY2) (SCI 2011, Impact Factor = 1.579, Ranking = 12/90, Engineering, Multidisciplinary)

**Yen-Hui Lin\***, Hsin-Jung Hsien (2011) Characteristics transformation of humic acid during ozonation and biofiltration processes. **Water Environment Research**, 83(5), 450-460, May 2011 (SCI 2011, Impact Factor = 0.883, Ranking = 54/78, Water Resources)

**Yen-Hui Lin\***, Chih-Lung Wu (2011) Sensitivity analysis of phenol degradation with sulfate reduction under anaerobic conditions. **Environmental Modeling & Assessment**, 16(4), 213-225, April 2011 (SCI 2011, Impact Factor = 0.971 Ranking = 152/205, Environmental Sciences)

**Yen-Hui Lin\***, Mu-Ling Juan, Hsin-Jung Hsien (2011) Effects of temperature and initial pH on biohydrogen production from food-processing wastewater using anaerobic mixed cultures. **Biodegradation**, 22(3), 551-563, March 2011 (SCI 2011, Impact Factor = 2.017, Ranking = 80/157, Biotechnology & Applied Microbiology)

**Yen-Hui Lin\*** (2010), Modeling the performance of biodegradation of textile wastewater using polyurethane foam sponge cube as a supporting medium. **Water Science and Technology**, 62(12), 2801-2810, December 2010. (SCI 2011, Impact Factor = 1.122, Ranking, Water Resources)

**Yen-Hui Lin\***, Mu-Ling Juan, Hau-Liang Huang, Hui-Ying Tsai, Pearl Hsui-Ping Lin (2010) Influence of sulfur concentration on bioleaching of heavy metals from industrial waste sludge. **Water Environment Research**, 82(11):2219-2228, November 2010. (E-12-218) (SCI 2011, Impact Factor = 0.883, Ranking = 54/78, Water Resources)

**Yen-Hui Lin\*** (2010), Nitrification/denitrification in a swine wastewater using porous ceramic sticks with plastic rings as supporting media in two-stage fixed-biofilm reactors. **Water Science and Technology**, 62(5), 985-994, September 2010. (SCI 2011, Impact Factor = 1.122, Ranking = 38/78, Water Resources)

**Yen-Hui Lin\***, Chih-Lung Wu, Chih-Hao Hsu, Hsin-Lung Li (2009) Biodegradation of phenol with chromium (VI) reduction in an anaerobic fixed-biofilm process-Kinetic model and reactor performance. **Journal of Hazardous Materials**, 172(2-3), 1394-1401, December 2009. (NSC 95-2221-E-166-009) (SCI 2011, Impact Factor = 4.173, Ranking = 1/118, Engineering, Civil)

**Yen-Hui Lin\***, Tzu-Yang Hsien (2009) Kinetics of biodegradation of phenolic wastewater in a biofilm reactor. **Water Science and Technology**, 59(9), 1703-1711, May 2009. (SCI 2011, Impact Factor = 1.122, Ranking = 38/78, Water Resources)

**Yen-Hui Lin\*** (2008) Kinetics of nitrogen and carbon removal in a moving-fixed bed biofilm

reactor. **Applied Mathematical Modelling**, 32(11), 2360-2377, November 2008. (SCI 2011, Impact Factor = 1.579, Ranking = 12/90, Engineering, Multidisciplinary).

**Yen-Hui Lin\***, Jyh-Yih Leu (2008) Kinetics of reactive azo-dye decolorization by *Pseudomonas luteola* in a biological activated carbon process. **Biochemical Engineering Journal**, 39(3), 457-467, May 2008. (SCI 2011, Impact Factor = 2.645, Ranking = 20/133, Engineering, Chemical)

**Yen-Hui Lin\***, Fuh-Long Chang, Ching-Yu Tsao, Jyh-Yih, Leu (2007) “Influence of growth phase and nutrient source on fatty acid composition of *Isochrysis galbana* CCMP 1324 in a batch photoreactor”, **Biochemical Engineering Journal**, 37(2), 166-176, November 2007 (SCI 2011, Impact Factor =2.645; Ranking = 20/133, Engineering, Chemical, ISI Time Cited:4).

**Yen-Hui. Lin\***, Kwang K. Lee (2006) “Kinetics of phenol degradation in an anaerobic fixed-biofilm process” , **Water Environment Research**, 78(6), 598-606, June 2006 (SCI 2011, Impact Factor =0.883, Ranking = 54/78, Water Resources, ISI Time Cited:2).

Tzu-Yang Hsien, **Yen-Hui Lin\*** (2005) “Biodegradation of phenolic wastewater in a fixed biofilm Reactor”, **Biochemical Engineering Journal**, 27(2), 95-103, December 2005 (SCI 2011, Impact Factor =2.645; Ranking=20/133, Engineering, Chemical, ISI Times Cited:27).

**Yen-Hui Lin\***, Jyh Y. Leu, Chi R. Lan, P-Hsiu P. Lin, Fuh L. Chang (2003) “Kinetics of inorganic carbon utilization by microalgal biofilm in a flat plate photoreactor”, **Chemosphere**, 53(7), 779-787, November 2003 (SCI 2011, Impact factor=3.206; Ranking = 32/205, Environmental Sciences, ISI Time Cited:10).

**Yen-Hui Lin\***, Kwang K. Lee (2001) “Verification of anaerobic biofilm model for phenol degradation and sulfate reduction”, **Journal of Environmental Engineering, ASCE**, 127(2), 119-125, February 2001 (SCI 2011, Impact Factor = 1.312, Ranking = 24/118, Engineering, Civil, ISI Time Cited:10)