

林燕輝 Yen-Hui Lin

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學歷：

美國威斯康辛大學密爾瓦基分校土木力學系環境工程組博士

國立成功大學環境工程系碩士

國立成功大學環境工程系學士

經歷：

中臺科技大學環境與安全衛生工程系教授(100年8月迄今)

中臺科技大學環境與安全衛生工程系副教授(97年2月迄100年7月)

中臺科技大學環境與安全衛生工程系助理教授(93年8月迄97年1月)

財團法人生物技術開發中心研究員(87年9月迄93年7月)

省政府環境保護處技士(78年11月迄81年7月)

考取證照名稱/或通過考試之名稱：

1. 中華民國 81 年專門職業環境工程技師高考及格
2. 中華民國 78 年公務人員環境工程乙等特考及格
3. 環保署甲級固體廢棄物處理專責人員證照
4. 環保署甲級廢水處理專責人員證照

學門專長：廢水生物處理；二氧化碳生物固定；二氧化碳生物轉化；環境微生物動力模式系統；污染物偵測與鑑定；分子生物技術應用於廢水處理

1. 國際期刊論文 (SCI International Journal Papers)

Yen-Hui Lin*, Chih-Hao Hsu (2013) Kinetics of chromium(VI) reduction by *Escherichia coli* 33456 using ceramic pearls as supporting media in a fixed biofilm reactor. **Environmental Technology**, 2nd Under Review (NSC 96-2221-E-166-004-MY2) (SCI 2011, Impact Factor=1.406, Ranking=116/205=56.6%, Environmental Sciences)

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**, 2nd Under Review (NSC 96-2221-E-166-004-MY2) (SCI 2011, Impact Factor = 3.051, Ranking = 36/205=17.6%, 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=56.6%, 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 = 51.0%, 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 = 50.4%, 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 = 50.4%, Engineering, Chemical)

Jyh-Yih Leu, **Yen-Hui Lin***, Fuh-Long Chang (2011) Conversion of CO₂ into CH₄ 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 = 29.3%, 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 = 13.3%, 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 = 69.2%, 國科會環工學門重點期刊, 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 = 74.1%, 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 = 51.0%, 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 = 38/78, 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, 國科會環工學門重點期刊, 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, 國科會環工學門重點期刊, 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 = 20.3%, 國科會環工學門重點期刊, Engineering, Civil, ISI Time Cited:10)

2. 國內期刊論文 (Domestic Journal Papers)

呂誌翼，張富龍，林泰宏，黃詩宜，林燕輝，謝子陽 (2009) “地質封存二氧化碳生物利用之可行性” “地質微生物利用二氧化碳生產甲烷能源之初步探討”，台電工程月刊，Vol. 719, No. 5, p. 113-123.

林泰宏，李雨薇，黃資螢，謝子陽，林燕輝，呂誌翼 (2004) “綠藻 FJ03 培養基營養組成之研究”，輔仁學誌，Vol. 38, No. 12, p. 197-209.

藍啟仁，林燕輝 (2004) “生物法固定二氧化碳之技術” 化工技術，Vol. 135, No. 6, p. 187-197.

阮慕玲，黃浩梁，林燕輝，林畢修平 (2004) “生物技術於含重金屬污泥回收再利用之應用”，台灣環保產月雙月刊，Vol. 25, No. 6, p. 11-13.

林燕輝*，張裕釧，白淑玲，林畢修平，張富龍，林玉寶 (2001) “利用食品廢液生產生物分解性材料” 工業污染防治，經濟部工業局，Vol. 80, No. 10, p. 187-208.

3. Conference Papers (國外研討會)

Yen-Hui Lin*, Mu-Ling Juan, Fuh-Long Chang “Fate of specific organic contaminants and heavy metals in wastewater treatment plants and river sediments around industrial park” oral presentation at 5th IWA-ASPIRE Conference & Exhibition 2013, Daejeon, Korea, September 8-12, 2013.

Yen-Hui Lin*, Hsin-Lung Li “Adsorption and biodegradation of reactive orange 16 by *Funalia trogii* 200800 in a biological activated carbon reactor” oral presentation at 5th IWA-ASPIRE Conference & Exhibition 2013, Daejeon, Korea, September 8-12, 2013.

Yen-Hui Lin*, Hsin-Lung Li “Kinetics of photocatalytic Degradation of 2-chlorophenol in a TiO₂ Catalyst” oral presentation at IWA Symposium on Environmental Nanotechnology 2013, Nanjing, China, April 24-27, 2013

Yen-Hui Lin*, Hsin-Jung Hsien “Removal of reactive orange 16 by *F. Trogii* 200800 on fly ash-chitosan composite media” oral presentation at IWA World Water Congress & Exhibition 2012, Busan, Korea, September 16-21, 2012.

Yen-Hui Lin* “Organic matter distribution of micropollutants in a pre-ozonation with packed-bed biofilter” poster presentation at Micropol & Ecohazard 2011, Specialist Conferences, Sydney, Australia, July 11-13, 2011

Yen-Hui Lin*, C. H. Hsu, C. L. Wu, H. L. Li öSimultaneous phenol degradation and chromium(VI) reduction in an anaerobic fixed-biofilm processö presented at Water Environment Federation's 82th Annual Conference & Exposition, Orlando, Florida, USA, October 10-14, 2009

Yen-Hui Lin*, öBiohydrogen production from food processing wastewater by a mixed culture in a stirred-tank bioreactorö presented at 2009 Hydrogen+Fuel Cells, Vancouver, Canada, May 31-June 3, 2009

Yen-Hui Lin*, öKinetics of biodegradation of phenolic wastewater in a biofilm reactorö presented at International Water Association's Young Water Professionals Programme, Berkeley, California, USA, July 16-18, 2008

Yen-Hui Lin*, Y. F. Hsu, C. H. Chen and P. H. P. Lin öNitrogen Removal Using Polyurethane Foam Sponge Cube as a Biomass Support Medium in a Moving-Fixed Bed Biofilm Reactor,ö presented at Water Environment Federation's 75th Annual Conference & Exposition, Chicago, Illinois, October 15-19, 2002

Yen-Hui Lin*, Y. Feng Hsu, C. Hsiang Chen, P-Hsiu P. Lin öSimultaneous removal of nitrate and organic carbon by biofilm under an anoxic conditionö In Proceedings of Asian Waterqual 2001, 1st IWA Asia-Pacific Regional Conference, 12-15 September, Fukuoka, Japan, pp.893-898, 2001

Yen-Hui Lin* and Lee, K. K. öModeling of Phenol Degradation with Sulfate Reduction Under Acidogenic and Sulfate-Reducing Conditionsö poster presentation at IAWQ 20th Biennial International Conference, July 3-7, Paris, France, 2000

Yen-Hui Lin* and Lee, K. K. öKinetics of Acetate Degradation in an Anaerobic Biofilm Process,ö In Conference Preprint of Asian Waterqual'99, 7th IAWQ Asia-Pacific Regional Conference, 18-20 October, 1999, Taipei, Taiwan, p. 1187-1192

Yen-Hui Lin* and Lee, K. K. öKinetics of Phenol Utilization with Sulfate Reduction in an Anaerobic Fixed Biofilm Reactor,ö In Proceedings of the Water Environment Federation 71st Annual Conference & Exposition, Orlando, Florida, October 3-7, 1998, pp. 395-406

Yen-Hui Lin* and Lee, K. K. öSimultaneous Removal of Phenol and Sulfate Using an Anaerobic Fixed Biofilm Process,ö Poster Presentation at IAWQ 19th Biennial International Conference, Vancouver, Canada, June 21-26, 1998

Yen-Hui Lin* and Chang, H. T. öSimultaneous Removal of Organics and Heavy Metals Using Anaerobic Biofilm Process,ö In Program Booklet of the Illinois Water Environment Association 17th Annual Conference, Springfield, Illinois, March 12-14, 1996

Yen-Hui Lin* and Chang, H. T. "Competition of Attached and Suspended Biomass in Biological Reactors" In Proceedings of the Water Environment Federation 67th Annual Conference & Exposition, Chicago, Illinois, October 15-19, 1994, p. 531-542.

Yen-Hui Lin* and Chang, H. T. "Theoretical Analyses of Dominant Form of Biomass in Biological Reactor," In Technical Program Booklet of the 15th Illinois Water Environment Association Annual Conference, Rockford, Illinois, March 29-31, 1994

4. Conference Papers (國內研討會)

李欣龍，林燕輝 (2012) "利用生物活性碳程序處理反應橙 16 染料" 第三屆環境衛生與永續發展研討會"在地的環境教育與樂活人生，嘉義，101 年 5 月 18 日，p. 66-74

許志豪，林燕輝 (2012) "利用燃煤飛灰為生物膜附著介質處理反應黑 5 染料之動力研究" 第三屆環境衛生與永續發展研討會"在地的環境教育與樂活人生，嘉義，101 年 5 月 18 日

許志豪，林燕輝 (2011) "利用燃煤飛灰為生物膜附著介質處理反應性染料之動力研究"，100 年鑛冶工程學會年會，台北，2011

謝子陽，林燕輝，呂誌翼，周宏農 "利用連續固定化生物膜光合反應器生成環狀胜肽 Microcystins 之研究"，2006 輸送現象及其應用研討會暨氫能源最新發展論壇，台北，2006

謝子陽，周宏農，呂誌翼，林燕輝 "不同 CO₂ 濃度培養藻類 Microcystis 之研究"，2006 輸送現象及其應用研討會暨氫能源最新發展論壇，台北，2006

林燕輝*，阮慕玲 "利用廢棄活性污泥生物產氫之研究"，2006 輸送現象及其應用研討會暨氫能源最新發展論壇，台北，2006

呂誌翼，謝子陽，林燕輝 "光合生物反應器固定二氧化碳之探討"，2005 輸送現象及其應用研討會，台北，2006

陳睿彬，阮慕玲，林燕輝，蔡慧穎，張富龍，畢修平 "工業區及其鄰近河川底泥中重金屬調查分析研究"，行政院環境保護署環境檢驗所，2005 年環境分析化學研討會，2005/05/20~2005/05/21

林泰宏，李雨薇，黃資螢，謝子陽，林燕輝，呂誌翼* (2004) "綠藻 FJ03 培養基營養組成之研究"，輔仁學誌，Vol. 38, No. 12, 197-209.

林燕輝*，徐雅芬，阮慕玲，林畢修平 "生物活性碳程序處理染整廢水與回收再利用" 2001 產業環保工程實務技術研討會，台北，2001，p. 44-53.

林燕輝*，張富龍，林畢修平，藍啟仁 “利用板型光合反應器處理電廠排放之二氧化碳”，2001 工業減廢暨環境管理研討會論文集，經濟部工業局編印，台北，2001，p.124-137.

林燕輝*，謝炎恭，彭欽鑫，王素蓮，林畢修平 “固定生物膜程序處理染整廢水之研究” 第二十六屆廢水處理研討會論文集，高雄，2001

林燕輝*，徐雅芬，陳啟祥 “Study on Nitrification of Artificial Lake Using Polyurethane Foam Sponge Cubes as a Biomass Support Medium”，第二十四屆廢水處理研討會論文集，中壢，1999，p. 135-142.

林燕輝*，徐雅芬，陳啟祥 “Simultaneous Removal of Nitrate and Organic Carbon in an Artificial Lake by an Anoxic Biofilm Process”，第二十四屆廢水處理研討會論文集，中壢，1999，p. 127-134.

5. Technical Reports (技術報告)

- (1)無氧/好氧生物膜濾床填充脫水污泥-飛灰-黏土複合陶瓷顆粒介質處理垃圾滲出水中有機物和氨氮 (NSC 100-2221-E-166-004-MY2)
- (2)厭氧生物膜流體化床填充飛灰-幾丁聚醣複合介質處理廢水中有機污染物之研究 (NSC 98-2221-E-166-001-MY2)
- (3)生物幾丁聚醣同時處理染整廢水中偶氮染料和鉻離子之研究 (NSC 96-2221-E-166-004-MY2)
- (4)利用生物溶出程序處理與回收污泥中重金屬，96 年教育部計畫(E-12-218)
- (5)厭氧生物膜程序同時還原六價鉻和氧化酚類有機物-95 國科會計畫 (NSC 95-2221-E-166-009)
- (6)社區大學人為防災素養提升培訓。94 年教育部顧問室。
- (7)*Isochrysis sp.* 海洋藻成分分析。90 年台電工服。
- (8)利用有機物生產聚脂類 PHA。89 年經濟部科技專案。
- (9)板型生物光合反應器性能測試。89 年台電工服。
- (10)微細藻類固定二氧化碳之動力研究。89 年度電力科技產業學術合作研究計畫。
- (11)生物活性碳處理染整廢水。89 年經濟部科技專案。
- (12)化學混凝及生物膜處理系統去除湖水中藻類，氮磷。88 年經濟部科技專案。

6. 進行中的計畫

污泥-飛灰陶瓷顆粒介質附著生物膜處理廢水中氯酚化合物 (NSC 102-2221-E-166-001-MY2)

7. 已結案計畫

- (1)無氧/好氧生物膜濾床填充脫水污泥-飛灰-黏土複合陶瓷顆粒介質處理垃圾滲出水中有機物和氨氮 (NSC 100-2221-E-166-004-MY2)
- (2)厭氧生物膜流體化床填充飛灰-幾丁聚醣複合介質處理廢水中有機污染物之研究-98 國科會計畫 (NSC 98-2221-E-166-001-MY2)
- (3)生物幾丁聚醣同時處理整廢水中偶氮染料和鉻離子之研究-96 國科會計畫(NSC 96-2221-E-166-004-MY2)
- (4)利用生物溶出程序處理與回收污泥中重金屬-96 教育部計畫(E-12-218)
- (5)厭氧生物膜程序同時還原六價鉻和氧化酚類有機物-95 國科會計畫(NSC 95-2221-E-166-009)

8. 專利

張富龍 (Fuh-Long Chang)，林燕輝 (Yen-Hui Lin)，林畢修平 (Hsiu-Ping Lin Pearl)，呂誌翼 (Chih-Yi Lu)，藍啓仁 (Chi-Ren Lan)，陳曉薇 (Hsiao-Wei Chen)，許讚全 (Tzann-Chean Shau) “一種微生物培養方法及其裝置” p.771-779, 中華民國專利，證書號數:I308177，中華民國 98 年 4 月 1 日，專利期間:2009.04.01~2022.03.27

林燕輝*，阮慕玲，徐雅芬，陳啟祥，林畢修平 “一種廢水處理裝置”，p. 2225~2234，中華民國專利，證書號數:204592，中華民國 93 年 6 月 11 日，專利期間:2004.06.11~2022.04.24

9. 國際期刊 Editor

Journal of Bioremediation & Biodegradation
Molecular Biology and Genetic Engineering

10. 國際期刊 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, Environmental Technology

11. 獎勵

榮獲國科會 102 年度獎勵特殊優秀人才補助
榮獲國科會 101 年度獎勵特殊優秀人才補助
榮獲國科會 100 年度獎勵特殊優秀人才補助
榮獲國科會 99 年度獎勵特殊優秀人才補助

12. 名人錄

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

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

13. 會員

International Water Association (IWA)

Water Environment Federation (WEF)