

Yu-Tzu Huang (黃郁慈)



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- Awards & Honors
科技部工程司 109 年度產學合作計畫產學成果簡報優良獎
Gold Medal Award, International Invention Festival Silicon Valley, 2019
Bronze Medal Award, Taiwan Innotech Expo Invention Contest, 2019
Bronze Medal Award, Taiwan Innotech Expo Invention Contest, 2018
Great Technology Licensing Award, Chung Yuan Christian University, 2018
Cultivative Academia-Industry Cooperation Award, Chung Yuan Christian University,
2015
KEY SCIENTIFIC ARTICLES selected by Global Medical Discovery, 2014
Rotary Yoneyama Scholarship Recipient, 2003-2005
Taiwan-Japan Interchange Association Scholarship Recipient, 1999-2001
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Editorial Board of Scientific Reports (Nature Publishing Group)
Editorial Board of Applied Environmental Biotechnology
Review Editors of Frontiers in Microbial Ecotoxicology and Bioremediation

SHORT BIO

Yu-Tzu Huang has completed her Ph.D at the age of 29 years from the University of Tokyo and postdoctoral studies at the same university. She has published Anammox bioprocess related papers in the leading journals (Water research, Bioresource Technology, Journal of Hazardous Materials, etc) and has been serving as an editorial board member of Scientific Reports. Her current interests are as following: genomics and proteomics of anammox bioprocess, genetic toxicity of emerging nanoparticles, and bioenergy production of microalgae.

- Publications

1. Yu-Tzu Huang^{*}, Shiou-Shiou Chen, Mike S.M. Jetten, Jih-Gaw Lin, Nanoarchitected structure and population dynamics of anaerobic ammonium oxidizers in a wastewater treatment plant, 2020, *Journal of Hazardous Materials*, 5 September, 396: 122714. (SCI, IF = 9.038)
2. Truong Thi Tuong Vi, Selvaraj Rajesh Kumar, Yu-Tzu Huang, Dave W. Chen, Yu-Kuo Liu, Shingjiang Jessie Lue^{*}, Size-Dependent Antibacterial Activity of Silver Nanoparticle-Loaded Graphene Oxide Nanosheets, 2020, June, *Nanomaterials* 2020, 10(6), 1207. (SCI, IF = 4.324)
3. Chao-Lung Chiang, Kuen-Song Lin^{*}, Chia-Wei Shu, Jeffrey C. S. Wu, Kevin C.-W. Wu, Yu-Tzu Huang, 2020, Enhancement of biodiesel production via sequential esterification/transesterification over solid superacidic and superbasic catalysts, *Catalysis Today*, May, 348:257-269. (SCI, IF = 5.825)
4. Chen-Hua Hsu, Antoine Venault^{*}, Yu-Tzu Huang, Bo-Wei Wu, Chung-Jung Chou, Kazuhiko Ishihara, Yung Chang^{*}, 2019, Toward Antibiofouling PVDF Membranes, *Langmuir*, 1 May, 35:6782-6792. (SCI, IF = 3.683)
5. Qian Wang, Giin-Yu Amy Tan, Mohammad Azari, Xiaowu Huang, Martin Denecke₂, Yujie Men, Jin-Young Jung, Satoshi Okabe, Muhammad Ali, Yu-Tzu Huang, Zhuoying Wu, Wai-hung Lo, Ji-Dong Gu, Jih-Gaw Lin^{*}, Po-Heng Lee^{*}, 2018, Insights into the roles of anammox bacteria in post-treatment of anaerobically-treated sewage, *Critical Reviews in Environmental Science and Technology*, Nov, 48(6):655-684. (SCI, IF =7.683)
6. Cheng-Chi Lien, Lu-Chen Yeh, Antoine Venault^{*}, Shao-Chi Tsai, Chen-Hua Hsu, Gian

- Vincent Dizon, Yu-Tzu Huang, Akon Higuchi, Yung Chang*, 2018, Controlling the zwitterionization degree of alternate copolymers for minimizing biofouling on PVDF membranes, *Journal of Membrane Science*, 1 November, 565:119-130. (SCI, IF = 7.015) 2/87=2.3%, Polymer Science, MOST 104-2221-E-033-066-MY3, 106-2632-E-033-001 ([10.1016/j.memsci.2018.07.054](https://doi.org/10.1016/j.memsci.2018.07.054))
7. Kuo-Yi Weng, Yaw-Jen Chang*, Ching-Yuan Ho, De Ue Liou, Yu-Tzu Huang, Wen-Yaw Chung, Ting-Yu Chin, 2018, Measurement of Impedimetric Ratio of Blood Cells Using Microfluidic Chip with ZnO Nanowires, *Journal of Medical and Biological Engineering*, February 38(1):150-158. (SCI, IF=1.211)
 8. Yu-Tzu Huang*, Chung-Wei Lai, Bo-Wei Wu, Kuen-Song Lin, Jeffrey C.S. Wu, Md Shahriar A Hossain, Yusuke Yamauchi, Kevin Chia-Wen Wu, 2017, Advances in bioconversion of microalgae with high biomass and lipid productivity, *Journal of the Taiwan Institute of Chemical Engineers*, October 79:37-42. (SCI, IF = 3.849)
 9. Wei-Hsin Chen*, Yi-An Chiang, Yu-Tzu Huang, Shen-Yi Chen, Shihwu Sung, Jih-Gaw Lin*, 2017, Tertiary nitrogen removal using simultaneous partial nitrification, anammox and denitrification (SNAD) process in packed bed reactor, *International Biodeterioration & Biodegradation*, May 120:36-42. (SCI, IF = 3.562)
 10. Ying-Chang Liang, Achlesh Daverey*, Yu-Tzu Huang, Shihwu Sung, Jih-Gaw Lin*, 2016, Treatment of semiconductor wastewater using single-stage partial nitrification and anammox in a pilot-scale reactor, *Journal of the Taiwan Institute of Chemical Engineers*, June 63:236-242. (SCI, IF = 3.849)
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 12. Antoine Venault*, Melibeth Rose B. Ballad, Yu-Tzu Huang, Yi-Hung Liu, Chi-Han Kao, Yung Chang, 2016, Antifouling PVDF Membrane Prepared by VIPS for Microalgae Harvesting, *Chemical Engineering Science*, March 142:97-111. (SCI, IF = 3.306)
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 14. Achlesh Daverey, Yi-Chian Chen, Kasturi Dutta, Yu-Tzu Huang, Jih-Gaw Lin*, 2015, Start-up of Simultaneous Partial Nitrification, Anammox and Denitrification (SNAD)

- Process in Sequencing Batch Biofilm Reactor Using Novel Biomass Carriers, *Bioresource Technology*, Aug 190:480-486. (SCI, IF = 5.807)
15. Yu-Tzu Huang*, Yusuke Yamauchi, Ankit Rawat, 2015, Gene *polA* as a suitable reference for studying antibacterial effect of Hydroxyapatite, *Journal of Biomedical Nanotechnology*, May 11(5):906-912. (SCI, IF = 3.929)
 16. Ya-Dong Chiang, Saikat Dutta, Ching-Tien Chen, Yu-Tzu Huang, Kuen-Song Lin, Jeffrey C. S. Wu, Norihiro Suzuki, Yusuke Yamauchi, Kevin C.-W. Wu*, 2015, Functionalized Fe₃O₄@Silica Core-Shell Nanoparticles as Microalgae Harvester and Catalyst for Biodiesel Production, *ChemSusChem*, March 8(5):789-794. (SCI, IF = 7.411)
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 18. Yu-Tzu Huang*, Chun-Ping Su, 2014, High lipid content and productivity of microalgae cultivating under elevated CO₂, *International Journal of Environmental Science and Technology*, April 11(3):703-710. (SCI, IF = 2.037)
 19. Ping Han, Yu-Tzu Huang, Jih-Gaw Lin, Ji-Dong Gu*, 2013, Comparison of Two 16S rRNA Gene-based PCR Primer Sets in Unraveling Anammox Bacteria from Different Environmental Samples, *Applied Microbiology and Biotechnology*, December 97:10521-10529. (SCI, IF = 3.340)
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 21. Yu-Tzu Huang*, Shiou-Shiou Chen, Po-Heng Lee, Jaeho Bae, 2013, Microbial Communities and population dynamics of single-stage autotrophic nitrogen removal for dilute wastewater at the benchmark oxygen rate supply, *Bioresource Technology*, November 147:649-653. (SCI, IF = 5.807)
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 26. Ya-Fen Wang*, Cheng-Hsien Tsai, Yu-Tzu Huang, How-Ran Chao, Tsui-Chun Tsou, Yi-Ming Kuo, Lin-Chi Wang, Shih-Hsuan Chen, 2013, Size distributions of airborne fungi in vehicles under various driving conditions, *Archives of Environmental & Occupational Health*, Feb 68(2):95-100. (SCI, IF = 1.386)
 27. Norihiro Suzuki, Yu-Tzu Huang*, Yoshihiro Nemoto, Atsushi Nakahira, Yusuke Yamauchi*, 2012, Highly Densified Mesoporous Bulk Silica Prepared with Colloidal Mesoporous Silica Nanoparticles toward a New Low-k Material, *Chemistry Letters*, Nov 41(11): 1518-1519. (SCI, IF = 1.625)
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- from opto-electronic wastewater using the simultaneous partial nitrification, anaerobic ammonium oxidation and denitrification (SNAD) process in sequencing batch reactor, *Bioresource Technology*, Jun 113:225-231. (SCI, IF = 4.750)
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33. Yu-Tzu Huang*, Tsung-Han Huang, 2012, Study of extracellular polymeric substances on the Formation of Fouling in Membrane Bioreactors, *Global Journal of Environmental Science & Technology*, Jan 2: article one (invited review)
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36. Juan L. Vivero-Escoto*, Yu-Tzu Huang, 2011, Inorganic-Organic Hybrid Nanomaterials for Therapeutic and Diagnostic Applications, *International Journal of Molecular Sciences*, Jun 12:3888-3927. (review, equal contribution of two authors). (SCI, IF = 2.464)
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39. Yu-Tzu Huang, Kazuya Iwamoto, Tatsuaki Kurosaki, Makoto Nasu, and Shintaroh Ueda*. 2005, Jul., The neuronal POU domain factor Brn-2 interacts with Jab1, a gene

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Book

Anaerobic Biotechnology: Environmental Protection and Resource Recovery, Chapter 4: State-of-the-Art Anaerobic Ammonium Oxidation (Anammox) Technology, Xiaoming Ji, Yu-Tzu Huang, Qian Wang¹, Giin Yu Amy Tan, Jih-Gaw Lin, and Po-Heng Lee, Oct 2015, Imperial College Press, ISBN 978-1-78326-790-3.