

國立屏東科技大學環境工程與科學系

水處理與環境管理研究室 (EP 210)

主持老師：陳冠中 (Kuan-Chung Chen) 教授



指導教授 簡介

學歷

Michigan State University 環境工程博士

經歷

國立屏東科技大學環境工程與科學系副教授、助理教授

財團法人環境資源研究發展基金會副研究員

Michigan State University 土木及環境工程系博士後研究員

Michigan State University 土木及環境工程系研究助理

行政院環境保護署綜合計畫處、空氣品質保護及噪音管制處技士

專長

- 飲用水及廢水高級處理
- 薄膜過濾及光催化技術
- 水回收技術
- 環境政策與管理
- 廢棄物資源化管理

近五年本研究室之學術期刊重點發表成果

1. Kazi Hasibur Rahman*, Asit Kumar Kar, Kuan-Chung Chen *. Highly active ZnO/Fe₃O₄-TiO₂ photocatalysts for visible-light photodegradation application and its colour change behaviour by d-d transition. Materials Science and Engineering: B, Vol. 305, July 2024, 117394 (2024)(SCIE)
2. Ching-Jung Chen, Chih-Chao Wu, Kazi Hasibur Rahman, Kuan-Chung Chen *. A Study on Photodegradation of Trichloroethylene Using an Optical Fiber Coated with Different Photocatalysts. Materials Science in Semiconductor Processing, 163: 107538 (2023) (SCI)
3. Kazi Hasibur Rahman, Asit Kumar Kar, Kuan-Chung Chen*, Ching-Jung Chen. Highly effective Fe-doped TiO₂ nanoparticles for removal of toxic organic dyes under visible light illumination. Nanotechnology, 34:24:245707 (2023) (SCI)
4. Kuan-Chung Chen* and Ching-Jung Chen, Investigating the Removal Efficiency of Photocatalytic Optical Fibers on an Organic Dye Solution. 2023 8th International Conference on Environmental Engineering and Sustainable Development (CEESD 2023), Matsue City, Japan, Nov. 1-3, 2023.
5. Ching-Jung Chen, Kuan-Chung Chen* Photocatalytic Optical Fiber Technology applied to the Treatment of Groundwater Containing Chlorinated Organics: A Preliminary Pilot Study. 9th IWA-ASPIRE Conference & Exhibition 2023, Kaohsiung, Taiwan, Oct. 22-26, 2023.
6. Kazi Hasibur Rahman*, Asit Kumar Kar, Kuan-Chung Chen*. Oxidation-induced catalytic performance of heterostructured Ni-TiO₂ nanoparticles and formation of Leuco-Methylene blue. Research on Chemical Intermediates, 48:4475-4501 (2022) (SCI)
7. Yu-Hsiang Wang, Kazi Hasibur Rahman, Chih-Chao Wu, Kuan-Chung Chen* A Review on The Pathways of the Improved Structural Characteristics and Photocatalytic Performance of Titanium-di-oxide Thin Films Fabricated by Magnetron-Sputtering Technique. Catalysts, 10 : 598 (2020) (SCIE)
8. Thirupathi M, Leeladevi K, Ramalingan Chennan, Kuan-Chung Chen*, Nagarajan E.R.* Construction of Novel Biochar Supported Copper Tungstate Nanocomposites: A Fruitful Divergent Catalyst for Photocatalysis and Electrocatalysis. Materials Science in Semiconductor Processing, 106: 104766 (2020) (SCI)

未來研究方向

1. 光催化串聯生物系統之水處理技術
2. 催化性高級氧化自淨薄膜之水處理技術
3. 農漁業用水處理回收再利用技術
4. 地下水中有機污染物之新穎處理技術

實驗室成員

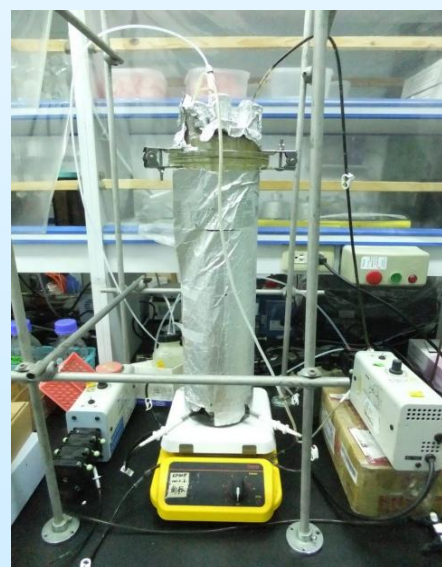
近三年	畢業碩士班學生：	6位
	碩專班學生：	1位
	專題生：	9位
目前	研究生：	5位
	專題生：	8位



TOC總有機碳分析儀



UV-Vis 積分球分光儀



串聯式臭氧-生物濾床反應槽