

■ 環境工程學系 王雅玢教授

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■ 研究論述

近五年來個人主要之研究主軸鎖定於淨零相關課題及污染物處理之研究，包括：應用高能量系統轉廢為能、產業二氧化碳排放及超細懸浮微粒之分佈相關研究。研究落實循環經濟之概念，將廢棄物轉化為生質能及生物質，並回收可再利用之物質及能源。此外，團隊利用實測資料探討不同產業之碳排，並探討其和操作參數及相關空氣污染物之關連性，提供未來進行碳排管制之參考。團隊在 Environ Res 2023 218:115061 發表的一篇關於 PM_{0.1} 的來源、量測和暴露的論文被美國 University of Tennessee 的二位教授 Professor Paul Terry and Professor Jianguang Chen 在知名的 Faculty Opinions 科學社群中推薦為優秀的教學素材，個人相關研究扣合國家政策方向展開。

本人近五年(2018-2022)發表之 SCI 期刊論文有 62 篇，計畫金額超過 6000 萬元，並於 2021 榮獲台灣氣膠研究學會工程學術論文獎。

■ 經驗分享

我總是想，大學老師的角色應該不只是傳道、授業、解惑，現代的大學老師應該是一位啟發者，啟發學生找到自己的學習方式，啟發學生找到自己的未來目標，更啟發學生找到自己的內在潛能。我理想中的學習應該像一場流動的饗宴，這場饗宴就像巴黎對海明威一樣，一輩子跟著他，我期盼學生的學習之旅，也像一場流動的饗宴，永遠伴隨著他們。

因此，我喜歡和學生及研究團隊一起討論研究課題，討論研究遇到的問題，尤其當學生可以 input 一些新的想法和方法來一起討論時，更讓我感受到教學相長的喜悅。我在中原 2006 年才開始有研究室，研究資源的到位花了很長的時間，我永遠都會記得我升等的代表著作是我帶著大學專題生一步一腳印完成，披荊斬棘，筭路藍縷，以啟山林，研究如此，人生亦是，共勉之。

Research focus

In the past five years, my research has focused on net-zero related topics and pollutants treatment/transformation, including: the application of high-energy systems to transform waste into energy, industrial carbon dioxide emissions, and the distribution of ultra-fine particles. My research concept is to implement the circular economy, transform waste into biomass energy and biomass, and recover reusable materials and energy. In addition, my team applied the real emission data to investigate the carbon dioxide concentrations from different industries and tried to find out the correlation with operational parameters and air pollutants concentrations to provide a reference for further carbon emission control. A paper on the sources, measurement and exposure of PM_{0.1} in Environ Res 2023 218:115061 published by my team was selected by Professor Paul Terry and Professor Jiangang Chen from the University of Tennessee in the well-known Faculty Opinions scientific community as excellent teaching materials. My research is mostly carried out in line with national policy directions.

I have published 62 SCI journal papers in the past five years (2018-2022), with total project funding over NT\$60 million. In 2021, My research was chosen as the Engineering Academic Paper Award of the Taiwan Association for Aerosol Research.

Experience sharing

I always think that the role of a university teacher should not only be about preaching, teaching, and solving doubts. An advanced university teacher should be an inspirer, inspiring students to find their own learning methods, inspiring students to find their own future goals, and inspiring students to find their own potential. My ideal study should be like a moveable feast. This feast is like Paris to Hemingway. It will follow him/her all his/her life. I hope that students' learning journey will also be like a moveable feast, always accompanying them.

Therefore, I like to discuss research topics and problems encountered in research with students and my research teams. Especially when students can input some new ideas and methods to discuss together, it makes me feel the joy of teaching and learning. I have my own research laboratory from 2006 and it took a long time to get the research resources in place. I will always remember that the representative paper of my promotion was completed by undergraduate students and I as a team step by step. Everything is not easy, it goes for research, also for life. However, we made it.