

國立清華大學第 23 屆新進人員研究獎得獎人簡介

陳翰儀博士於 2016 年 3 月獲得德國慕尼黑工業大學化學系與新加坡南洋理工大學聯合博士學位，之後前往英國新堡大學從事博士後研究，並於 2016 年 7 月加入國立清華大學材料科學與工程系擔任助理教授。其研究領域包括儲能元件與綠色再生能源材料，如鋰離子電池、鈉離子電池、鋅離子電池、超級電容器、高電壓固態電解電容器、微生物燃料電池、植物微生物燃料電池等。除在材料上的合成以及電池性能與電化學性質之量測分析外，亦致力於各式臨場量測技術，包含同步輻射 X 光吸收與繞射光譜、穿透 X 光顯微鏡、臨場拉曼光譜等，以探討電池在充放電反應過程中之機制，幫助材料於儲能元件應用的推進。其多篇研究成果刊登於 Journal of Materials Chemistry A、Nano Energy、Advanced Energy Materials 等國際期刊，並申請且獲准多項國內外專利，以及擔任多個頂尖國際期刊的審稿人。其於 2018 年榮獲科技部年輕學者養成計畫「愛因斯坦計畫」獎助，並在 2020 年獲得清華大學工學院及校級新進人員研究獎。陳翰儀教授目前亦是國立清華大學高熵材料中心協同主持人，此外與業界合作多項產學計畫與技術委託案件，亦與國內外諸多研究團隊合作，極具國際化。此外其指導學生不遺餘力，經常帶領學生至國外進行研究以及參加國內外重要學術研討會，拓展學生國際視野，並多次於校內外研究競賽與研討會獲獎。

Dr. Han-Yi Chen received her joint Ph.D. degree from the Department of Chemistry at the Technical University of Munich, Germany and Nanyang Technological University, Singapore in March 2016. After that, she went to Newcastle University, UK for post-doctoral research and then joined the Department of Materials Science and Engineering at National Tsing Hua University, Taiwan as an assistant professor in July 2016. Her research fields include energy storage and renewable energy materials, such as lithium-ion batteries, sodium-ion batteries, zinc-ion batteries, supercapacitors, high-voltage solid electrolytic capacitors, microbial fuel cells, and plant microbial fuel cells. In addition to the synthesis of novel materials and the analysis of battery performance and electrochemical properties, her research group is also focus on various in situ technologies, including synchrotron radiation X-ray absorption and diffraction spectroscopies, transmission X-ray microscopy, and in situ Raman spectroscopy. Those techniques can explore the charge transfer mechanism of the battery during the charging and discharging processes and help to improve the materials in energy

storage devices. Many of her research results have been published in international journals such as Journal of Materials Chemistry A, Nano Energy, Advanced Energy Materials, etc., and she has applied and obtained numbers of patents. She is also served as reviewer for many top international journals. In 2018, she won the "Einstein Project" grant and Young Scholar Fellowship from the Ministry of Science and Technology, Taiwan. In 2020, she won the Young Investigator Award of National Tsing Hua University. Prof. Han-Yi Chen is currently the co-PI of the High Entropy Materials Center of National Tsing Hua University. In addition, she has cooperated with many companies and many domestic and international research teams. In addition, she often leads students to conduct research abroad and participate in many domestic and international conferences. Her students also won many awards in research competitions and conferences.