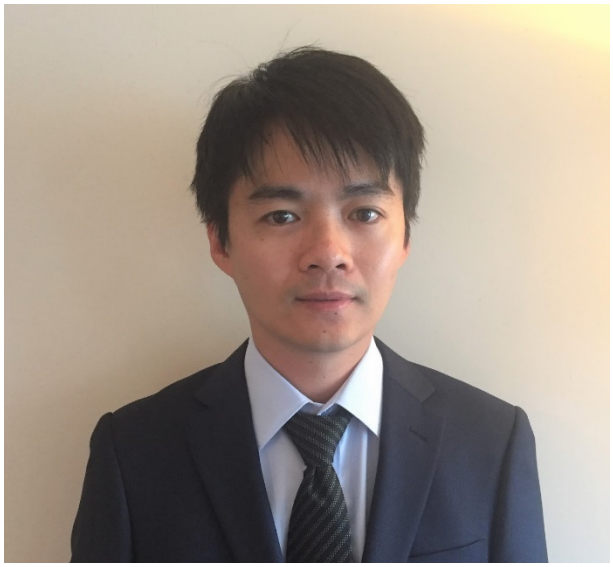

楊東翰老師於 2021 年 2 月加入清華大學化工系，在研發處、工學院、化工系、高熵材料研發中心，以及國科會愛因斯坦年輕學者計畫和新秀學者計畫的支持下，並在學生與合作夥伴們的熱情參與中，專注於建構金屬及多元高熵合金奈米晶體庫。研究成功開發出數十種可調控的合金奈米晶體，這些晶體在化學組成、晶體結構和幾何對稱性上具高度可調性，並證實在能源與催化領域中具備卓越的應用潛力。在過去三年，楊老師以通訊作者身分於多個國際頂尖期刊上發表重要研究成果，包括《*Science Advances*》（兩篇）、《*Advanced Functional Materials*》及《*Chemistry of Materials*》等期刊。這些成果不僅被國家同步輻射研究中心與國科會化學圖書電子報報導，也使楊老師榮獲多項榮譽，包括李長榮學術研究傑出青年教授、台灣觸媒學會傑出研究論文獎及清大工學院新進人員研究獎。除學術上的重大突破外，楊老師的團隊亦高度重視與產業界的合作，也與台積電及長春集團進行產學研究計畫，並於 2023 年榮獲清華-長春產學大聯盟亮點計畫的榮譽。

Professor Tung-Han Yang joined the Department of Chemical Engineering at National Tsing Hua University in February 2021. With support from the Office of Research and Development, the College of Engineering, the Department of Chemical Engineering, the High-Entropy Materials Research Center, and funding from the National Science and Technology Council's Einstein Young Scholar Program and Young Scholar Fellowship Program, as well as the enthusiastic participation of students and collaborators, Professor Yang has focused on constructing a library of metal and multi-component high-entropy-alloy nanocrystals. His research has successfully developed dozens of tunable alloy nanocrystals with highly adjustable chemical compositions, crystal structures, and geometric symmetries, demonstrating exceptional potential for

applications in energy and catalysis. Over the past three years, Professor Yang has published significant research as a corresponding author in several top international journals, including *Science Advances* (two papers), *Advanced Functional Materials*, and *Chemistry of Materials*. His work has been featured by the National Synchrotron Radiation Research Center and in the Chemistry E-News by the National Science and Technology Council. In recognition of his achievements, Professor Yang has received several prestigious awards, including the LCY Outstanding Young Scholar Award, the Taiwan Catalysis Society's Outstanding Research Paper Award, and the New Faculty Research Award from NTHU's College of Engineering. Beyond academic breakthroughs, Professor Yang's team highly values industry collaboration and is currently conducting joint research projects with TSMC and the Chang Chun Group.