

## 國立清華大學第 22 屆新進人員研究獎得獎人簡介

呂明諺博士於 2009 年取得國立清華大學材料工程博士學位，期間曾前往美國喬治亞理工學院、麻省理工學院和加州大學柏克萊分校等名校進行訪學及擔任博士後研究工作。於 2012 年於國立中正大學光機電所任教，2016 年轉任國立清華大學材料系至今。

本人與研究團隊深耕於電子顯微分析、臨場觀測技術和低維度材料合成與特性探討等研究領域。過去曾利用電子顯微分析技術解開原子極化、異質界面扭曲和缺陷型態等重要材料結構訊息；而臨場觀察材料的熱膨脹、擴散、相變化等基本材料現象更是本人的研究主軸。此外，低維度材料給予科研發展很多不同的可能性，本團隊利用低維度材料至今開發了：奈米發光二極體、壓電發電機、自驅動光偵測器和水分解產氫等應用。研究成果發表於 Science、Advanced Materials、Nano Letters、ACS Nano、Advanced Functional Materials 和 Small 等國際期刊；另外也擔任多個頂尖國際期刊的審稿人。呂明諺博士研究表現傑出，2018 年獲得吳大猷先生紀念獎，2019 年開始執行科技部年輕學者養成計劃（哥倫布計畫），同一年也獲得國立清華大學工學院新進人員研究獎。

此次能獲得校新進人員研究獎感受相當榮幸，特別要感謝家人一路的陪伴與支持、師長與同儕們的鼓勵和學生們一起努力鑽研學術。

Dr. Ming-Yen Lu received his Ph.D. in Materials Engineering from National Tsinghua University in 2009. During his studies, he went to Georgia Institute of Technology, Massachusetts Institute of Technology, and the University of California at Berkeley as the scholar for conducting the state-of-art research in materials science. In 2012, he joined the graduate institute of opto-mechatronics at National Chung Cheng University. In 2016, he joined the department of materials science and engineering at National Tsing Hua University. His research deeply focuses on research fields such as advanced structural analysis with electron microscopy, in-situ dynamic study of materials, and characterization and applications of low-dimensional materials. Dr. Lu published excellent research results in prestigious academic journals such as Science, Advanced Materials, Nano Letters, ACS Nano, Advanced Functional Materials, and Small. Importantly, Dr. Lu received many awards for recognizing his outstanding academic performances (2014 Exploration Research Award from Pan Wen Yuan Foundation, 2018 Ta-You Wu Memorial Award from MOST, 2019 Young Scholar Fellowship from MOST and 2019 Young Investigator Award of NTHU).