

材料與分析科技探計畫

114 年度新增計畫清單

計畫編號	總主持人	計畫名稱
AS-iMATE-114-11	林耿慧	用微流體技術控制細胞從二維培養環境到三維培養環境了解細胞骨架如何影響細胞體積 Switching cellular microenvironment from two-dimensional (2D) surface to three-dimensional (3D) curved surface based on the microfluidic technology to elucidate the regulation on cell volumes by cytoskeleton tensions
AS-iMATE-114-12	徐晨軒	探索低維度奈米材料系統中的拓樸物質與新穎量子現象 Exploring topological matter and novel quantum phenomena in low-dimensional nanoscale material systems
AS-iMATE-114-13	李偉立	研究雙層氧化物薄膜異質結構及其介面的新興電子相 Investigation of emerging electronic phases in thin films of bilayer oxide heterostructures and their interfaces
AS-iMATE-114-21	李賢明	精準健康需要的多肽微脂體引信控制通用平台 Universal platform for controlled release of polypeptide liposomes tailored to precision health needs
AS-iMATE-114-22	俞聖法	甲烷單加氧酶的仿生異相電催化甲烷至甲醇 Heterogeneous electrochemical catalytic oxidation of methane to methanol inspired by the particulate Methane Monooxygenase (pMMO)
AS-iMATE-114-23	鍾博文	原子精準設計於異相觸媒表面的活性奈米結構 Atomic precision design on active nanosturture of heterogeneous catalyst surface
AS-iMATE-114-24	顏宏儒	螺旋狀奈米石墨烯：由下而上合成與其手性光學性質研究 Bottom-up synthesis of helical nanographenes with conspicuous chiroptical properties
AS-iMATE-114-31	林靖衛	發展波長 1100 奈米以上之短波紅外流式細胞術 Developing short-wave infrared flow cytometry with wavelengths beyond 1100 nm
AS-iMATE-114-32	陳俊嘉	雷射冷卻「長生命期」「高激發態」原子：圓態(circular state)超冷雷德堡原子製備與新穎量子態探索 Laser cooling of long-lived excited state atoms: preparation of circular state ultracold rydberg atoms and exploration of novel quantum phases
AS-iMATE-114-33	陳貴賢	波多爾逆反應作為 CO ₂ 轉換成 CO 的觸媒效應(二) Catalytically enhanced reverse Boudouard reaction for CO ₂ to CO conversion (2)

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AS-iMATE-114-34	謝佳龍	高通量液相單一奈米粒子分析技術 High-throughput single nanoparticle characterization in solution
AS-iMATE-114-41	林時彥	二維材料及其混成結構在光偵測器的應用: 雪崩光電流, 快速響應以及長波長偵測 2D materials and hybrid structures for photodetector applications: avalanche photocurrents, quick responses and extended detection wavelengths

註：以上計畫須俟本院 114 年法定預算案通過後始得執行。