

製造科技研究所  
Institute of Manufacture  
Technology

智慧型材料與設計  
Smart Materials and  
Design

智慧型材料與設計實驗室  
Smart Materials & Design  
Lab.



O: 綜科 613-C  
#2070

L: 綜科 613-B  
#4811

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研究領域

電鍍表面處理、智慧型材料  
與結構應用、複合材料結構  
分析、有限元素分析

近期研究主題

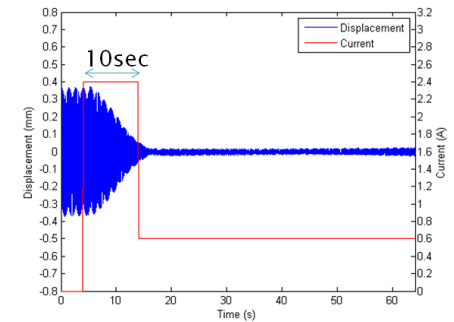
- 超臨界CO<sub>2</sub>電鍍鎳合金
- 鍍層之磨耗腐蝕
- 智慧型材料吸振器
- 奈米結構電極之氫催化性
- 微探針結構電鍍
- 矽酸鋅薄膜螢光材料
- 局部電化學沉積

Research Area

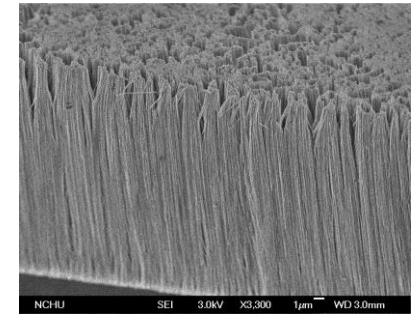
Surface modification using  
electrodeposition, smart materials  
and applications, structural analysis of  
composite laminates, finite element  
analysis

Recent Topics

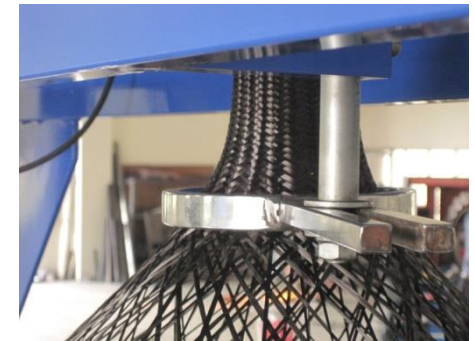
- Supercritical CO<sub>2</sub> assisted Ni and  
alloy electroplating
- Tribocorrosion of electroplated Ni  
alloys
- Tunable smart material vibration  
absorber
- Hydrogen evolution reaction  
electrode using Ni nanostructure
- Fabrication of micro-probe structure  
using Ni-alloy electrodeposition
- Phosphor of Zn<sub>2</sub>SO<sub>4</sub> sputtered film
- Localized electrochemical deposition



形狀記憶型吸振器之結構減振控制  
Vibration reduction using smart  
material absorber



奈米線氫催化電極結構  
Nanowire electrode for HER catalysis



3D 複合材料編織技術  
Quasi-3D braiding of fiber preform