

能源與冷凍空調系所 Department of Energy and Refrigerating Air- Conditioning Engineering

建築物理環境模擬技術 Building Physics Environment Simulation

微流體與系統模擬實驗室 Microfluidics and System Simulation Lab.



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研究領域

多相燃燒/熱傳、兩相流、建築環境模擬、微流體力學、太空推進與系統工程

• 微流體觀測與系統模擬技術

1. 三維微型混合與聚焦系統技術之研究
2. 掃流式微型過濾系統技術之研究
3. 壓電式微泵浦系統技術之研究
4. 肺癌細胞檢測系統技術之研究

近期研究主題

• 建築物理環境數值模擬技術

1. 都市環境熱島效應微氣候模擬研究
2. 戶外建築群風環境與舒適度研究
3. 建築室內通風流場與空氣品質研究

Research Area

Microfluidics, Heterogeneous burning/heat transfer, Space propulsion and systems engineering, Two phase flow, Building environment simulation

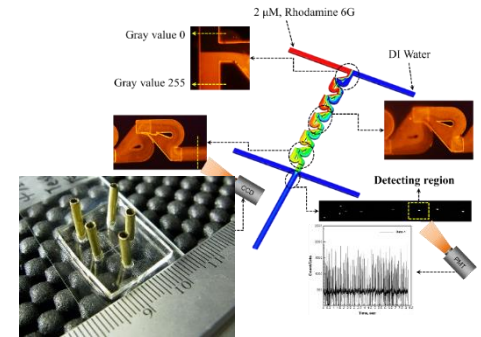
• Observation of microfluid and system simulation technologies

1. Three dimensional micro mixing and focusing system technologies
2. Sweep microfilter system technologies
3. The research of piezoelectric micro pump system technologies
4. Cancer cells detection system technologies

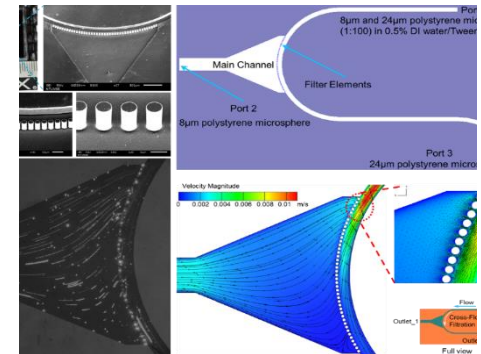
• Building physical environment simulation

1. CFD simulation of urban heat island on the urban environment
2. Outdoor Human Comfort on the wind environment for pedestrians
3. Ventilation and indoor environmental quality

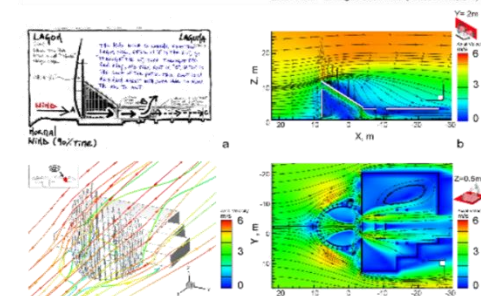
Recent Topics



三維微型混合與聚焦系統
Three dimensional micro mixing and focusing system



掃流式微型過濾系統技術之研究
Sweep microfilter system



建築自然通風設計研究與改善
Study of natural ventilation in buildings