



光電材料磊晶實驗室

Epitaxial Growth of Optoelectronic Materials Lab.



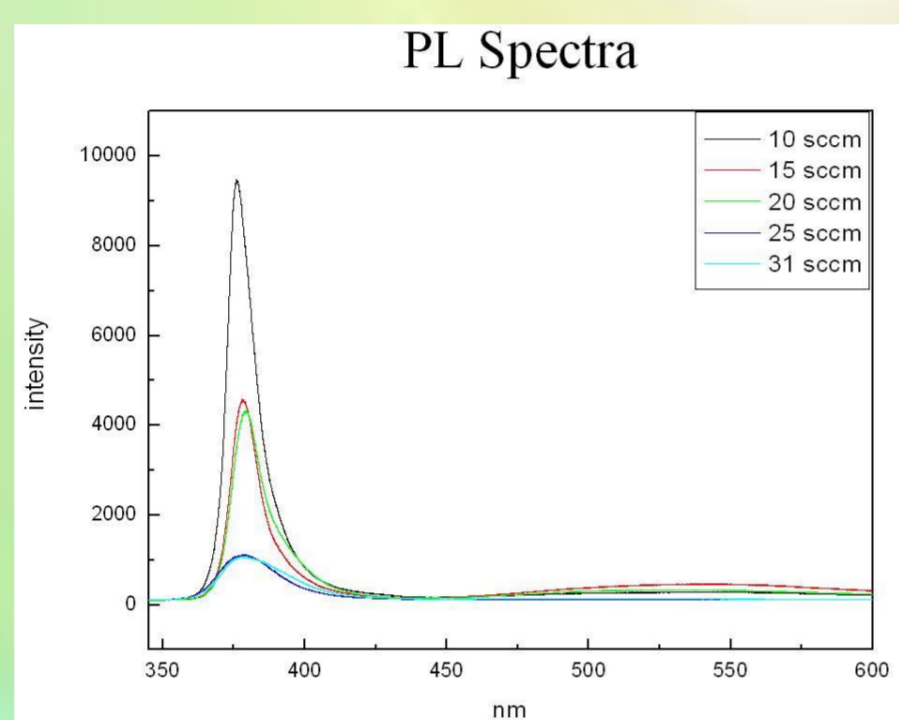
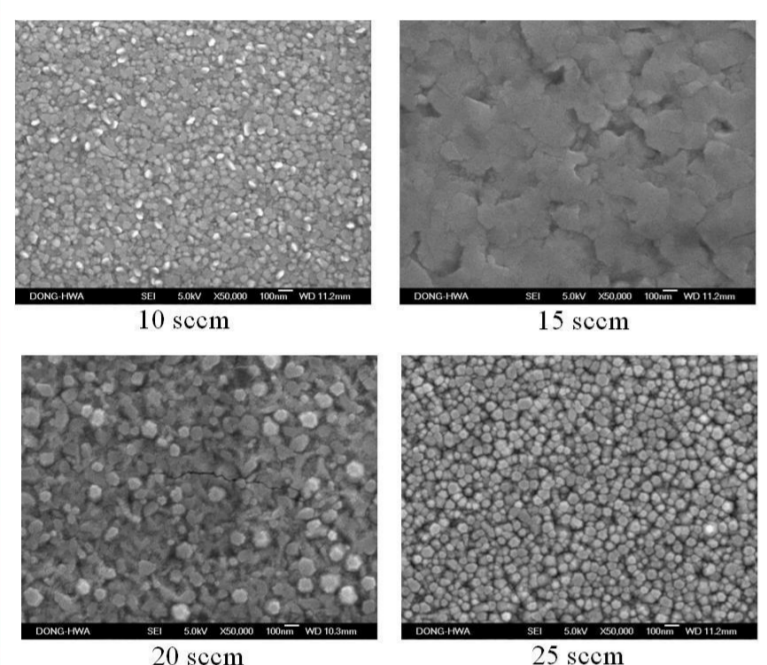
研究方向

- II-VI 半導體磊晶
- 染料敏化太陽能電池電極成長
- 奈米氧化物粉體成長
- ZnO 磊晶成長與 LED 元件設計
- TiO₂ 奈米微結構薄膜成長與設計
- TiO₂ 奈米光觸媒合成

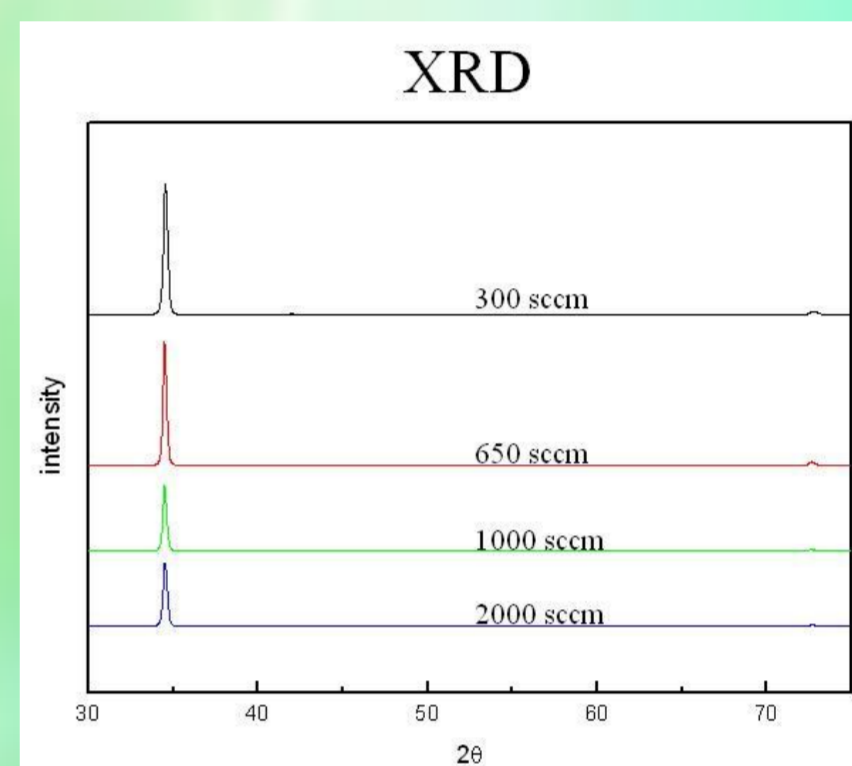
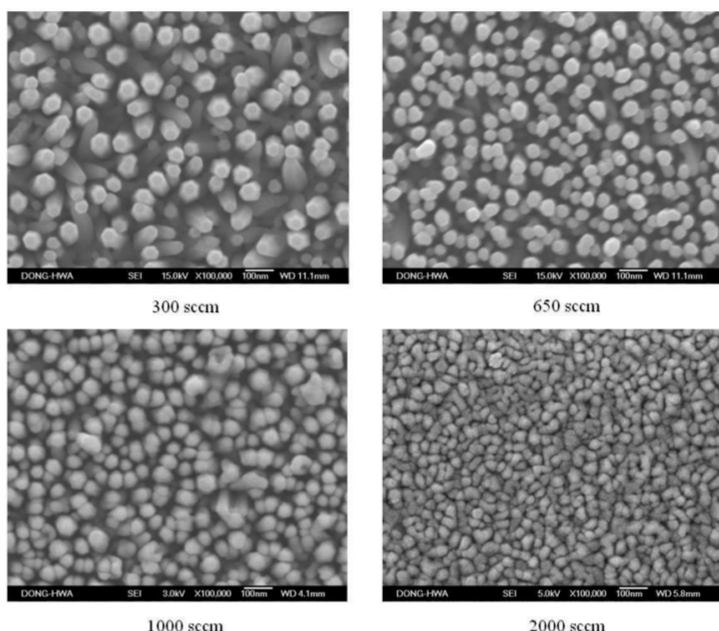
研究成果

ZnO 磊晶成長

Effect of DMZn folw Rate on ZnO morphology

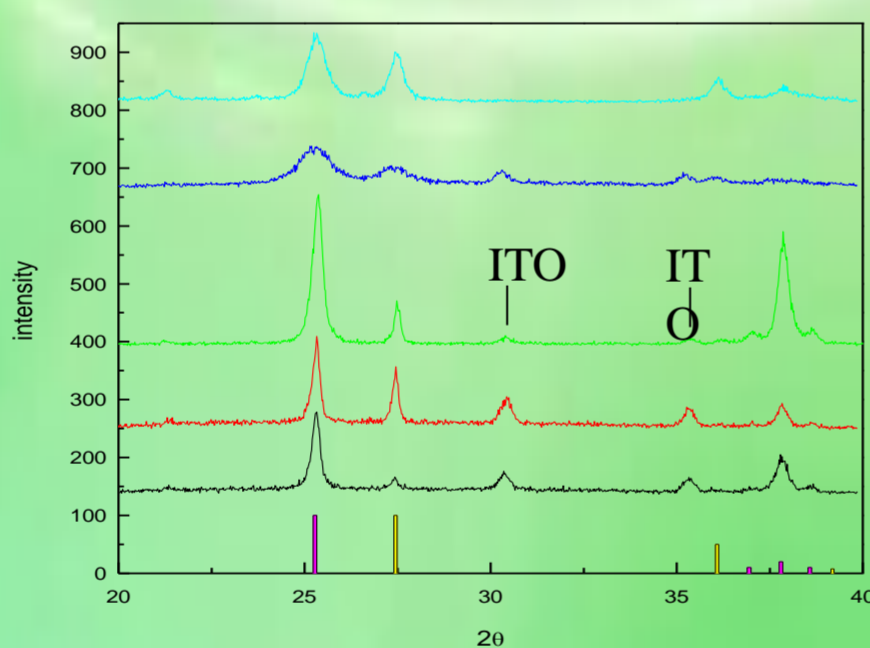
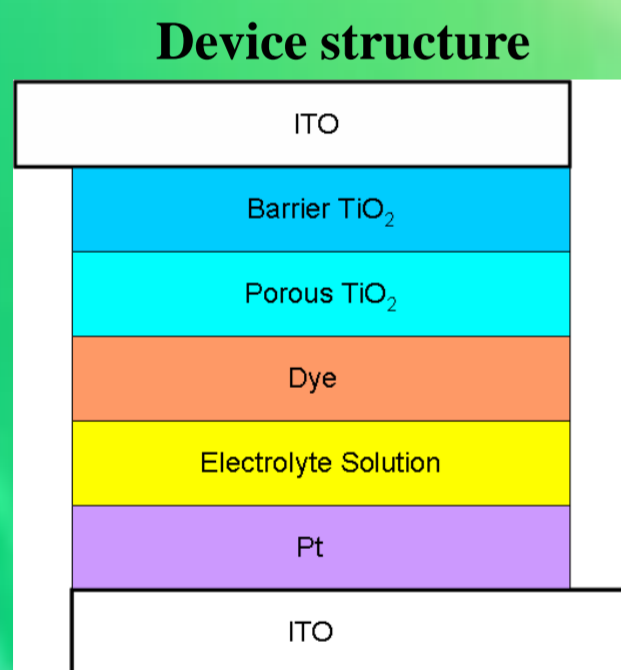


Effect of Oxygen Flow Rate on ZnO Morphology

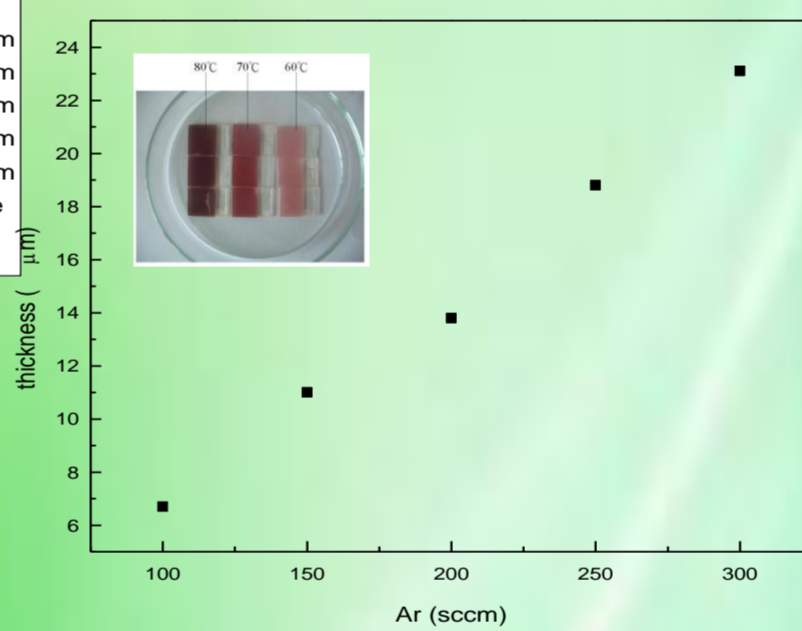


染料敏化太陽能電池電極成長

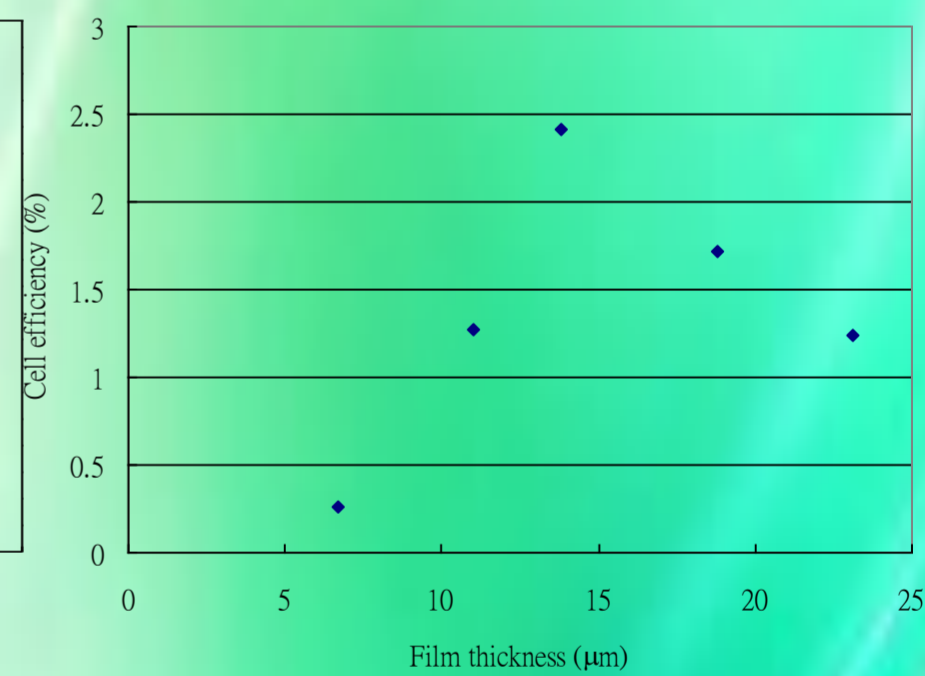
XRD analysis



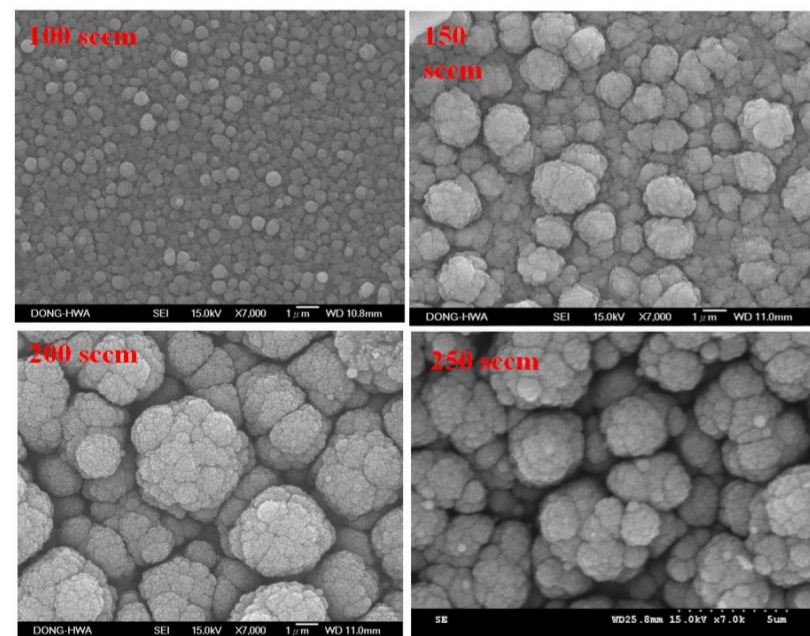
Film Thickness Variation



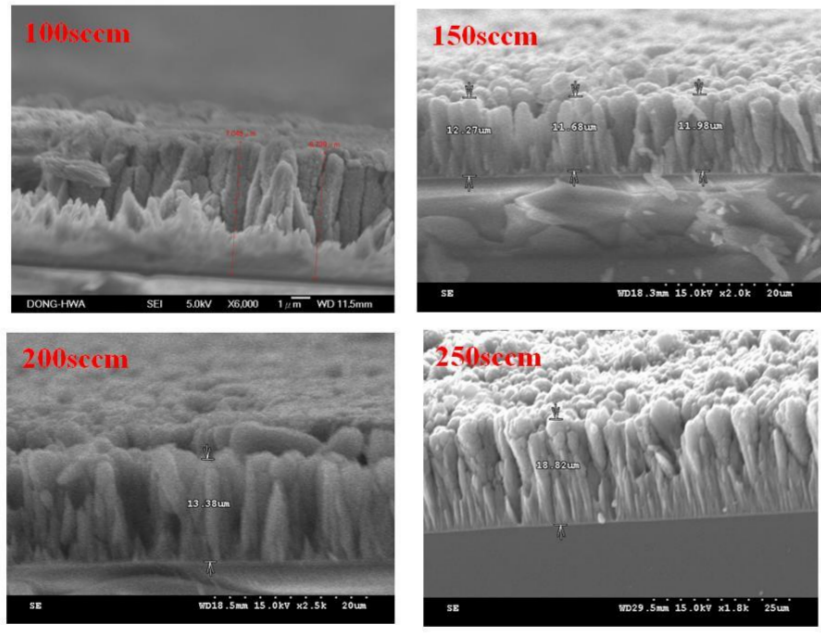
Cell Efficiency v.s. Thickness



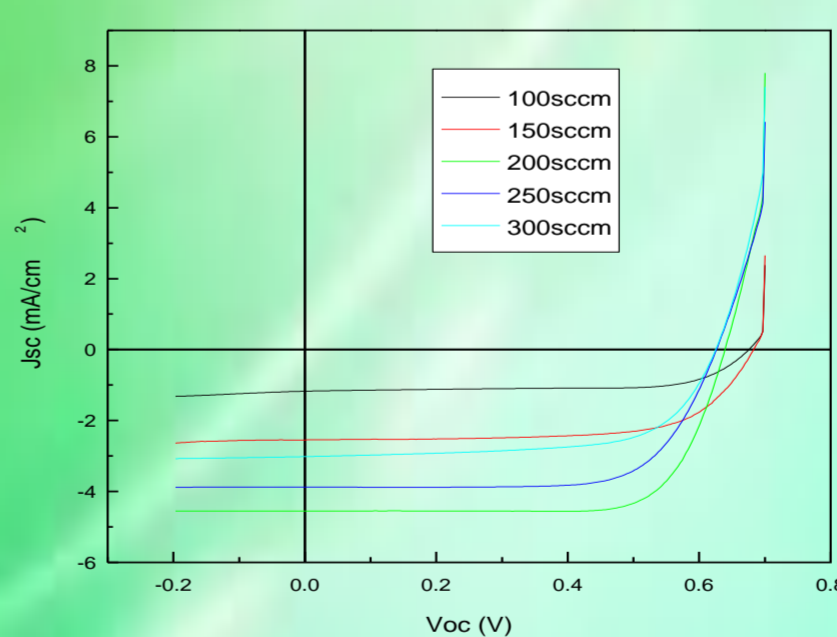
Effect of Argon Flow Rate on DSSCs



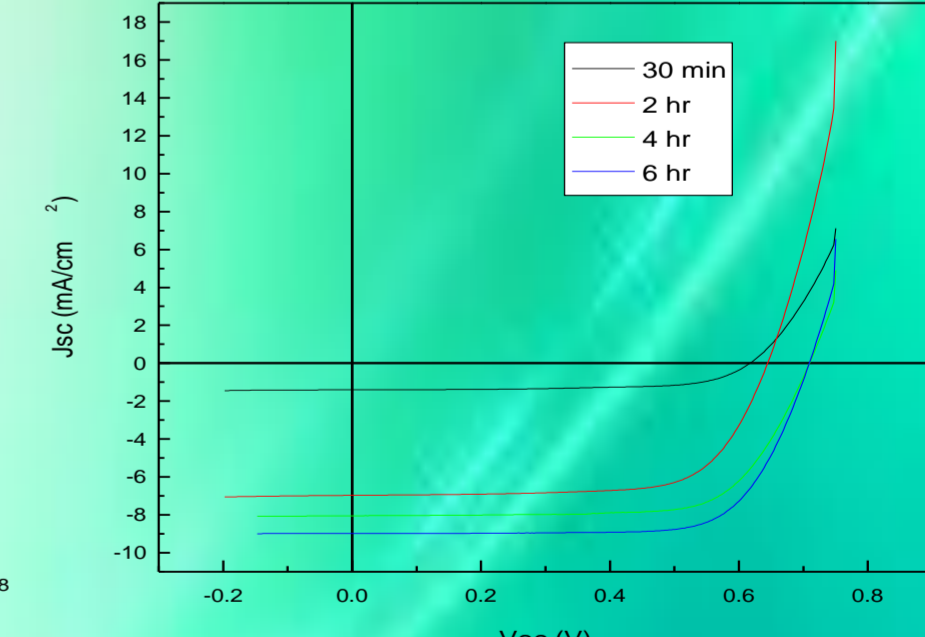
Effect of Argon Flow Rate on DSSCs



Device I-V characteristics

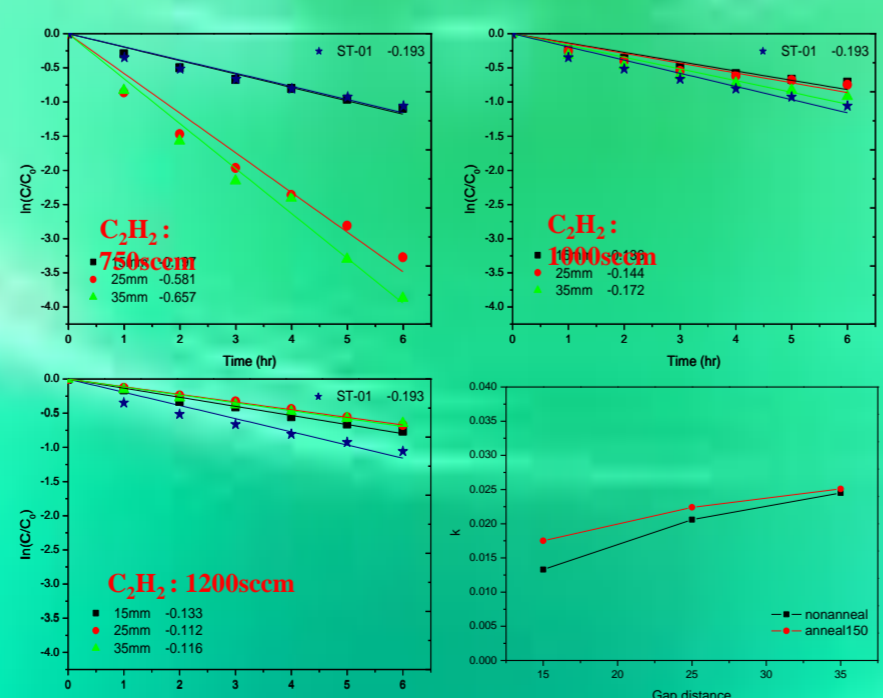


Effect of Annealing

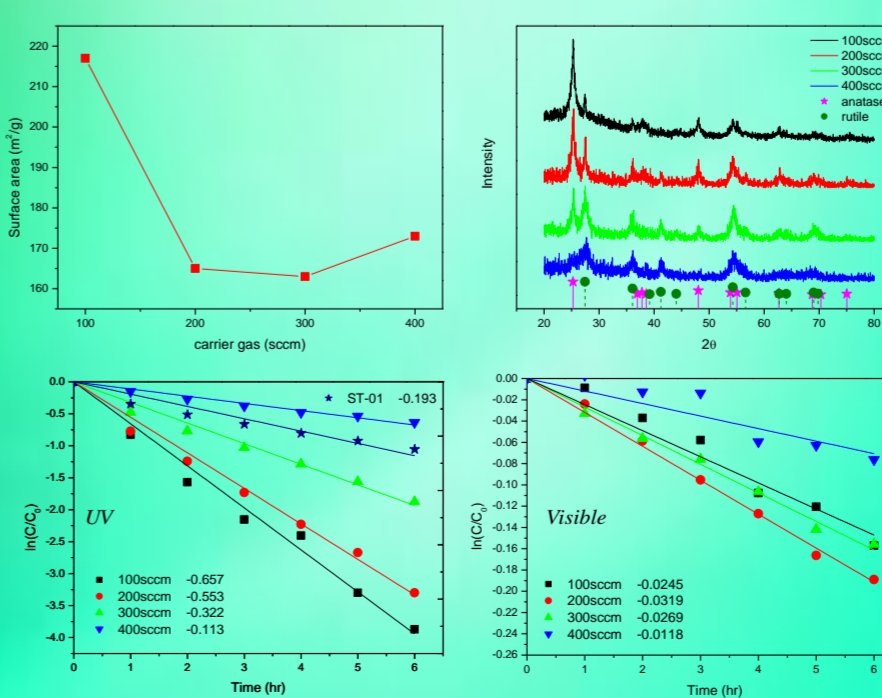


TiO₂ 奈米光觸媒

Effect of Acetylene Flow



Effect of Carrier Gas Flow



Effect of Annealing

