

第六章 未來展望

本研究已成功利用 MPCVD 法開發出於矽晶片上合成各種不同形貌的碳奈米結構之製程，不過還有一些議題我們可以進一步去研究：

1. 各種碳奈米結構於 MPCVD 系統中的確切成長機制
2. 提高單壁碳奈米管的產率
3. 低溫成長各種碳奈米結構
4. 嘗試利用 ECRCVD 系統(較低真空環境)製備各種碳奈米結構
5. 大面積成長具有優異場發射性質的材料
6. 製作場發射元件



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個人簡歷

基本資料

- 姓名：鄧伊茹 (I-Ju Teng)
- 出生年月日：民國 70 年 2 月 3 日
- 籍貫：台北市
- 聯絡電話：(03)5731950
- 電子信箱：eru7023@yahoo.com.tw

學歷

- 國立交通大學 材料科學與工程系碩士班 (92 年 9 月~ 94 年 8 月)
- 國立臺灣科技大學 化學工程系 (88 年 9 月~ 92 年 6 月)
- 台北市立中正高中 (85 年 9 月~88 年 6 月)



經歷

- 國立交通大學材料所 材料機械性質教學助教 (94 年 2 月~ 94 年 6 月)
- 國立交通大學奈米所 材料科學與奈米技術教學助教 (93 年 9 月~94 年 1 月)

著作

國際期刊論文

- B.K. Chuang*, I.J. Teng, W.H. Wang, and C.T. Kuo, "Growth mechanism and properties of the amorphous carbon-coated and well-aligned Si nanocones by MPCVD", accepted by Diamond and Related Materials (2005).
- B.K. Chuang*, I.J. Teng, and C.T. Kuo, "Effect of substrate bias on growth and properties of carbon nanotubes deposited under no hydrogen introduction by MPCVD", submitted to Diamond and Related Materials (2005).