九十八年度自然處專題計畫主持人研究成果

（修正：96/10/28）

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(一)、研究成果(2001/1/1～2009/12/31)。

1. 請依序填寫，姓名,發表年份,著作名稱,期刊及;卷數,頁數, **並以*號註記該篇之通訊作者**
2. ▲:被引用次數（扣除自我引用次數）; **SCI:** Impact Factor ,

(A) 期刊論文

1. **Ie-Hong Hong***, Yen-Chieh Liao, and Shang-Chieh Yen, **2009**

   "Self-Organization of Highly-Integrated Silicon Nanowire Network on Si(110)−16×2 Surface by Controlling Domain Growth",

   Advanced Functional Materials, **19**, 3389–3395 **(SCI: 7.4)**

2. **Ie-Hong Hong***, Shang-Chieh Yen, and Fu-Shiang Lin, **2009**

   "Two-Dimensional Self-Organization of an Ordered Au-Silicide Nanowire Network on a Si(110)-16×2 Surface",

   Small, **5**, 1855–1861 **(SCI: 6.505)**

3. **Ie-Hong Hong***, Ting-Chang Hsu, Shang-Chieh Yen, Fu-Shiang Lin, Mao-Lin Huang, and Chia-Hao Chen, **2006**

   "Spectromicroscopic evidence for epitaxial poly-Si thin film formed on amorphous Si substrate by nickel induced lateral crystallization",

   Appl. Phys. Lett. **89**, 182116 **(SCI: 4.127)**

4. **Ie-Hong Hong***, Ting-Chang Hsu, Shang-Chieh Yen, Fu-Shiang Lin, Mao-Lin Huang, and Chia-Hao Chen, **2007**

   "In situ spectromicroscopic studies for nickel induced lateral crystallization of amorphous silicon thin film",

   Surf. Sci. **601**, 301 **(▲:1, SCI: 1.78)**

5. **Ie-Hong Hong*** , Chiu-Ping Cheng, and Tun-Wen Pi, **2007**

   "The specific oxidation mechanism in the initial stages of O_2 adsorption on submonolayer Ba covered W(110) surface",

Surf. Sci. **601**, 1726 **(▲:1, SCI: 1.78)**

6. **Ie-Hong Hong*** , Chiu-Ping Cheng, and Tun-Wen Pi, **2007**

   "Physical origin of anomalous negative W 4*f* surface core-level shifts in the initial oxidation of submonolayer Ba on W(110) surface",

   Phys. Rev. **B75,** 165412 **(SCI: 3.18)**

7. J. W. Chiou, H. M. Tsai, C. W. Pao, K. P. Krishna Kumar, J. H. Chen, D. C. Ling, F. Z. Chien, W. F. Pong*, M.-H. Tsai, J. J. Wu, S. C. Liu, **I.-H. Hong**, C.-H. Chen, H.-J. Lin, and J. F. Lee, **2007**

   "Role of valence-band Co 3d states on ferromagnetism in $Zn_{1-x}Co_x$Onanorods",

   Appl. Phys. Lett. **90**, 062103 **(SCI: 4.127)**

8. **Ie-Hong Hong***, Ting-Chang Hsu, Shang-Chieh Yen, Fu-Shiang Lin, Mao-Lin Huang, and Chia-Hao Chen, **2005**

   "Nickel induced lateral crystallization of amorphous silicon thin film studied by SPESM",

   Proc. 8th Int. Conf. X-ray Microscopy, 270 **(ISBN4-900526-21-5)**

9. J. W. Chiou, H. M. Tsai, C. W. Pao, C. L. Dong, C. L. Chang, F. Z. Chien, W. F. Pong*, M.-H. Tsai., S. C. Shi, C. F. Chen, L. C. Chen, K. H. Chen, **I.-H. Hong**, H.-J. Lin and J. H. Guo, **2005**

   "Comparison of the electronic structures of AlN nanotips grown on p- and n-type Si substrates",

   J. Phys. : Condens. Matter **17,** 7523 **(SCI: 1.757)**

10. J. W. Chiou, K. P. Krishna Kumar, J. C. Jan, H. M. Tsai, C. W. Bao, W. F. Pong*, M.-H. Tsai, **I.-H. Hong**, R. Klauser, J. F. Lee, J. J. Wu and S. C. Liu, **2004**

    "Diameter dependence of the electronic structure of ZnO nanorods determined by x-ray-absorption spectroscopy and scanning photoelectron microscopy",

    Appl. Phys. Lett. **85**, 3220 **(SCI: 4.308)**

11. J. W. Chiou, J. C. Jan, H. M. Tsai, C. W. Bao, W. F. Pong*, M.-H. Tsai, **I.-H. Hong**, R. Klauser, J. F. Lee, J. J. Wu, and S. C. Liu, **2004**

    "Electronic structure of ZnO nanorods studied by angle-dependent x-ray-absorption spectroscopy and scanning photoelectron microscopy",

    Appl. Phys. Lett. **84,** 3462. **(▲:4, SCI: 4.308)**

12. **I.-H. Hong***, J. W. Chiou, S.-C. Wang, R. Klauser, W. F. Pong, L. C. Chen, and T. J. Chuang, **2003**

"Electronic Structure of Aligned Carbon Nanotubes Studied by Scanning Photoelectron Microscopy",

Journal de Physique IV,**104**, 467 **(SCI: 0.319)**

13. J. W. Chiou, J. C. Jan, H. M. Tsai, W. F. Pong*, M.-H. Tsai, **I.-H. Hong**, R. Klauser, J. F. Lee, C. W. Hsu, H. M. Lin, C. C. Chen, C. H. Shen, L. C. Chen, and K. H. Chen, **2003**

"Electronic structure of GaN nanowire studied by x-ray-absorption spectroscopy and scanning photoelectron microscopy",

Appl. Phys. Lett. **82**, 3949 **(▲:3, SCI: 4.049)**

14. Ruth Klauser*, **I.-H. Hong**, S.-C. Wang, M. Zharnikov, A. Paul, A. Terfort, and T. J. Chuang, **2003**

"Imaging and Patterning of Monomolecular Resists by Zone-Plate-Focused X-ray Microprobe"

J. Phys. Chem. **B, 107**, 13133**. (SCI: 2.95)**

15. R. Klauser*, M. Zharnikov, **I.-H. Hong**, S.-C. Wang, A. Gölzhäuser, and T. J. Chuang, **2003**

"Imaging of Patterned Self-assembled Monolayers by Scanning Photoelectron Microscopy",

Journal de Physique IV, **104**, 459 **(SCI: 0.319)**

16. J. W. Chiou, J. C. Jan, H. M. Tsai, and W. F. Pong*; **I.-H. Hong**, R. Klauser; M.-H. Tsai, Y. K. Chang, Y. Y. Chen, C. T. Wu, K. H. Chen, S. L. Wei, C. Y. Wen, L. C. Chen, and T. J. Chuang, **2002**

"Electronic structure at the carbon nanotube tips studied by x-ray-absorption spectroscopy and scanning photoelectron microscopy"

Appl. Phys. Lett. **81**, 4189. **(▲:2, SCI: 4.207)**

17. R. Klauser*, **I.-H. Hong**, T.-H. Lee, G.-C. Yin, D.-H. Wei, and K.-L. Tsang, T. J.Chuang, S.-C. Wang, S. Gwo, Michael Zharnikov, and J.-D. Liao, **2002**

"Zone-plate-based scanning photoelectron microscopy at SRRC: performance and applications",

Surf. Rev. & Lett. **9**, 213. **(SCI: 0.586)**

18. D.-H. Wei*, Y.-J.Hsu, **I.-H. Hong**, R. Klauser, G.-Y. Yin, and T. J. Chuang, **2003**

"Photoelectron Microscopy Projects at SRRC",

Surf. Rev. Lett. **10**, 617 **(SCI: 0.586)**

19. **I.-H. Hong***, T.-H. Lee, G.-C. Yin, D.-H. Wei, Ruth Klauser, K.-L. Tsang, T. J. Chuang, **2001**

"Performance of the SRRC scanning photoelectron microscope",

Nucl.Instrum. Methods Phys.Res. **A**, **467/468**, 905. **(SCI: 1.166)**

20. R. Klauser*, **I.-H. Hong**, H.-J. Su, T.T. Chen, S. Gwo, S.-C. Wang, T.J. Chuang, and V.A. Gritsenko, **2001**

"Oxidation states in scanning-prpbe-induced Si_3N_4 to SiO_x conversion studied by Scanning Photoemission Microscopy",

Appl. Phys. Lett. **79**, 3143. **(▲:5, SCI: 3.849)**

21. C.Y. Chang, **I.H. Hong**, Y,C. Chou, C.M. Wei*, **2001**

"Atomic structures by direct transform of diffraction patterns",

J. Phys Chem. of Solids, **62**, 1777. **(SCI: 1.026)**

22. C.Y. Chang, **I.H. Hong**, Y,C. Chou, C.M. Wei*, **2001**

"Surface structures by direct transform of electron diffraction patterns",

J. Phys Condens. Matter, **13**, 10709. **(SCI: 1.757)**

23. **洪一弘**，李德輝，殷廣鈴，魏德新，柯陸詩，陳建德，曾金榮，莊東榮，

"掃描式光電子能譜顯微儀簡介"，科學發展月刊，**29**(1), 21 (2001)。

24. **洪一弘**，"光電子能譜顯微儀"，光訊，**89**, 5 (2001)。

25. **洪一弘**，李德輝，殷廣鈴，王世杰，柯陸詩，曾金榮，莊東榮，

"掃描式軟 X 光光電子能譜顯微儀之原理及應用"，科儀新知，**22**(6), 54 (2001)。

26. **洪一弘**，李德輝，殷廣鈴，魏德新，王世杰，柯陸詩，陳建德，曾金榮，莊東榮，

"掃描式軟 X 光光電子能譜顯微儀之原理及應用"，真空科技，**14**(4), 12 (2001)。----封面主題

27. 柯陸詩，**洪一弘**，魏德新，莊東榮,

"以掃描式軟光電子能譜顯微術研究表面化學反應"，化學, **60**, 369 (2002)

(B) 技術報告

1. **洪一弘**，李德輝，殷廣鈴，魏德新，王世杰，柯陸詩，曾金榮，陳建德，莊東榮，

"掃描式軟 X 光光電子能譜顯微儀之原理及應用"，國家同步輻射研究中心技術報告, 2003

（二）、重要會議演講。

1. “Performance of the SRRC scanning photoelectron microscope”

   7th International Conference on Synchrotron Radiation Instrumentation (SRI 2000), Berlin, Germany.

2. “Soft X-ray scanning photoelectron spectromicroscope at SRRC: performance and applications” **(invited talk)**

   2001 物理年會

3. “Zone-plate-based scanning photoelectron microscopy at SRRC: performance and applications” **(invited talk)**

   VUV-XIII International Conference, July 23-28, 2001, Trieste, Italy.

4. “Chemical Characterization of Material Surfaces with Submicron Resolution” **(invited talk)**

   SRRC Seventh Users’ Metting, October 31- November 1, 2001.

5. “Soft X-ray scanning photoelectron spectromicroscope at SRRC: performance and applications” **(invited poster)**

   Yamada Conference VII on "Atomic-scale surface designing for functional low-dimensional materials", November 14 -16, 2001, Tsukuba, Japan.

6. “Electronic structure of aligned carbon nanotubes studied by scanning photoelectron microscopy (SPEM)”

   X-ray Microscopy 2002 Conference, July 29 – August 2, 2002, Grenoble, France.

7. “Imaging of patterned self-assembled monolayers by soft x-ray scanning photoemission microscopy (SPEM)”

   X-ray Microscopy 2002 Conference, July 29 – August 2, 2002, Grenoble, France.

8. “Oxidation states in scanning-probe-induced Si_3N_4 to SiO_x conversion studied by scanning photoelectron microscopy (SPEM)”

   X-ray Microscopy 2002 Conference, July 29 – August 2, 2002, Grenoble, France.

9. “**利用光電子能譜顯微術分析奈米材料特性**” **(invited talk)**

   國立嘉義大學 2003 生物奈米研討會

10. "Surfactant-Mediated Self-Organized Growth of Au-dot Arrays on Si(100) studied by SPEM"
彰雲嘉地區大專校院 2003 年研發成果聯合發表會

11. "Nickel Induced Lateral Crystallization of Amorphous Silicon Studied by SPESM"
The 8th International Conference on X-ray Microscopy (XRM2005), July 26 – 30, 2005, Himeji, Japan.

(三)、近五年內研究成果統計表

統計類別	2005		2006		2007		2008		2009	
	總篇數	IF 總和	總篇數	IF 總和	總篇數	總篇數	IF 總和	總篇數	IF 總和	IF 總和
所有 SCI 期刊論文(含共同作者)	**1**	**1.757**	**1**	**4.127**	**4**	**10.839**			**2**	**13.9**
SCI 期刊論文(限通訊作者)			**1**	**4.127**	**3**	**6.84**			**2**	**13.9**
其他著作	1.專書：___件、 2.專利或技轉：___件									

說明:

1. 請依照個人資料表所列之研究成果，於下表提供五年內**(2003/1/1～2007/12/31)**已發表或被接受發表於 SCI 期刊、專書、專利或技術移轉等資料。
2. SCI (Science Citation Index) 之 Impact Factor 係以 **2008** 年版本為準。請至有購買 Journal Citation Reports on the Web，簡稱 JCR Web，資料庫之各大學圖書館或財團法人國家實驗研究院科技政策研究與資訊中心(http://www.stic.gov.tw/fdb/jcr/index.html)進行查詢。
3. IF 總和: 係該年度論文所刊載期刊之 Impact Factor 總和。