

Publication List

Journal Papers

1. Yung-Shun Yang, **Yi-Pai Huang**, Han-Ping D. Shieh, Meng-Chang Tsai, and Ching-Yu Tsai, “Applications of Micro-tube Array on Transflective Liquid Crystal Displays for Backlight Efficiency Enhancement”, accepted for publication by Jpn. J. Appl. Phys, August 2004.
2. **Yi-Pai Huang**, Xinyu Zhu, Hongwen Ren, Qi Hong, Thomas X. Wu, Shin-Tson Wu, Mu-Zen Su, Meng-Xi Chan, She-Hong Lin, and Han-Ping D. Shieh, “Full-Color Transflective Cholesteric LCD with Image-Enhanced Reflector”, Invited and accepted for publication by Special Issue of J. SID, July 2004.
3. **Yi-Pai Huang**, Liang-San Chu, and Han-Ping D. Shieh, “Analyses and Improvements of Whiteness of Reflective Liquid”, Jpn. J. Appl. Phys, Vol. 43(2004), No. 9A.
4. **Yi-Pai Huang**, Shin-Tson Wu and Han-Ping D. Shieh, “Application of Multidirectional Asymmetrical Microlens-Array Light Control Films on Various Reflective Liquid Crystal Displays for image quality improving”. Appl. Opt., Vol. 43 (2004), pp. 3656-3663.
5. **Yi-Pai Huang**, Fu-Jen Ko, Juie-Jun Chen and Han-Ping D. Shieh, “Multi-directional Asymmetrical Microlens Array Light Control Film for Improve Image in Reflective Color Liquid Crystal Displays”. Jpn. J. Appl. Phys. Vol. 41(2002), pp. 646-651.

International Conference Papers

1. Yung-Shun Yang, **Yi-Pai Huang**, and Han-Ping D. Shieh, “Micro-tube Array on Transflective Liquid Crystal Displays for Enhancing the Backlight Utilization Efficiency”, submitting to Lasers & Electro-Optics Society 2004 (LEOS2004).
2. (*Invited paper*) Han-Ping D. Shieh, **Yi-Pai Huang**, and Ko-Wei Chien, “Micro-optics Components for Liquid Crystal Displays Applications”, The 24th International Display Research Conference (IDRC’04), Korea.
3. (*Distinguished student paper*) **Yi-Pai Huang**, Xin-Yu Zhu, Hong-Wen Ren, Qi Hong, Thomas Xinzhang Wu, Shin-Tson Wu, She-Hong Lin, and Han-Ping David Shieh,

- "Full-Color Transflective Ch-LCD with Image-Enhanced Reflector", Society for Information Display 2004 (SID'04), pp 882~885.
4. (*Invited paper*) Han-Ping David Shieh, **Yi-Pai Huang**, Mu-Jen Su, Shin-Tson Wu, "Micro Optical Components on Transflective LCDs" Asian Symposium on Information Display 2004(ASID'04), pp. 56~58.
 5. (*Invited paper*) Han-Ping David Shieh, **Yi-Pai Huang**, Mu-Jen Su, Shin-Tson Wu, "Micro Optical Components for Enhancing the Image Quality of Transflective LCDs", Lasers & Electro-Optics Society 2003 (LEOS2003), Paper number: Th-DD4.
 6. **Yi-Pai Huang**, Mu-Jen Su, Shin-Tson Wu and Han-Ping D. Shieh, "A Single Cell-Gap Transflective Color TFT-LCD by using Image-Enhanced Reflector", Society for Information Display 2003 (SID'03), pp.86~89.
 7. Liang-San Chu, **Yi-Pai Huang**, Han-Ping David Shieh, Ming-Jiun Liaw, and Kang-Hung Liu, "Analyses of Whiteness of Reflective TFT-LCDs", Society for Information Display 2003 (SID'03), pp.632~635.
 8. **Yi-Pai Huang**, Mu-Jen Su, Shin-Tson Wu, and Han-Ping David Shieh, "Random Grating Light Control Film and Image-Enhancement Reflector for High Quality Transflective color TFT-LCDs" International Display Manufacturing Conference 2003 (IDMC'03), pp.219~222.
 9. **Yi-Pai Huang**, Kaw-Wei Chien, Yeh-En Chien, and Han-Ping David Shieh, "High Brightness Reflective Color STN-LCD Using a Multi-directional Asymmetrical Microlens Array Light Control Film". Advanced Manufacturing Technologies and Education 2002 (AMTE'02), p. 213.
 10. **Yi-Pai Huang**, Shin-Tson Wu, and Han-Ping David Shieh, "High Performance Transflective Color TFT-LCDs by Using Random Grating Light Control Film and Image-Enhancement Layer" The 22th International Display Research Conference (IDRC'02) pp.867~870.
 11. (*Invited paper*) Han-Ping D. Shieh, **Yi-Pai Huang**, Fu-Jen Ko, Shin-Tson Wu, "High Image Quality Reflective Liquid Crystal Displays by Using Multi-directional Asymmetrical Microlens-Array Light Control Films", Asian Symposium on Information Display 2002(ASID'02), pp. 159~162.

12. **Yi-Pai Huang**, Fu-Jen Ko, Juie-Jun Chen, Shin-Tson Wu and Han-Ping D. Shieh, "Multidirectional Asymmetrical Microlens-Array Light Control Films for High Performance Reflective Liquid Crystal Displays", Society of Information Display 2002(SID'02), pp.870~873.
13. (*Best student paper*) **Yi-Pai Huang**, Fu-Jen Ko and Han-Ping D. Shieh, "High Brightness Reflective Color STN-LCD Using a Multi-Directional Asymmetrical Microlens Array Light Control Film " Symposium on Information Display 2001(SID'01), pp. 448~451.
14. **Yi-Pai Huang**, Fu-Jen Ko, Shin-Tson Wu and Han-Ping D. Shieh, "Multi-directional Asymmetrical Micro-Optical Light Control Film for Reflective LCDs Applications", Asian Symposium on Information Display 2000(ASID'00), pp. 159~162.

Domestic Conference Paper

1. **Yi-Pai Huang**, Mu-Zen Su, Shin-Tson Wu, and Han-Ping D. Shieh, "High Image Quality Transflective TFT-LCDs by using Image Enhanced Reflector and Random Grating Light Control Film" Taiwan Display Conference 2004 (TDC2004) pp.244~247.
2. Meng-Xi Chan, **Yi-Pai Huang**, Mu-Zen Su, Shin-Tson Wu, and Han-Ping D. Shieh, "High Performance Full-Color Transflective Ch-LCD with Image-Enhanced Reflector" Taiwan Display Conference 2004 (TDC2004) pp.224~227.
3. Yu-Chieh Chen, **Yi-Pai Huang**, Liang-San Chu, and Han-Ping D. Shieh, "Analyses and Improvements of Whiteness of Reflective TFT-LCDs" Taiwan Display Conference 2004 (TDC2004) pp.237~241.
4. Yeong Shuenn Yang, **Yi-Pai Huang**, Jim-Min Chang, Ching-Yu-Tsai, Meng-Chang Tsai, Huang-Jian Zhi, and Han-Ping D. Shieh, " Application of Micro-tube Array in Transflective LCDs for Transmissive Light Efficiency Enhancement" Taiwan Display Conference 2004 (TDC2004) pp.233~236.
5. (*Best student paper*) **Yi-Pai Huang**, Mu-Zen Su, Shin-Tson Wu, and Han-Ping David Shieh, "Image Quality Enhanceing of Transflective LCDs by Using Micro-optical Components" Optics and Photonics Taiwan'03 (OPT'03) Vol. 1. pp.325~327.
6. Liang-San Chu, **Yi-Pai Huang**, Ching-Tsung Ni, Han-Ping David Shieh, Ming-Jiun Liaw, and Kang-Hung Liu, "Whiteness evaluation for TFT-LCDs" Optics and Photonics Taiwan'03 (OPT'03) Vol. 2. pp.393~395

7. Yeong Shuenn Yang, **Yi-Pai Huang**, Mu-Zen Su, Han-Ping David Shieh, and Shin-Tson Wu, "Transflective LCDs with Image Enhanced Reflector Fabricated by Excimer Laser Micromachining with Half-tine Mask" Optics and Photonics Taiwan'03 (OPT'03) Vol. 2. pp.519~521.
8. (*Best student paper*) **Yi-Pai Huang**, Fu-Jen Ko, Shin-Tson Wu, and Han-Ping David Shieh, "High quality reflective LCD by using Multi-directional Asymmetrical Microlens Array Light Control Film" Optics and Photonics Taiwan'02 (OPT'02) Vol. 2. pp.46~48.
9. **Yi-Pai Huang**, Fu-Jen Ko and Han-Ping D. Shieh, "Multi-directional Asymmetrical Microlens Array Light Control Film to Enhance Brightness of Reflective LCDs" Optics and Photonics Taiwan'00 (OPT'00), Vol. 2. pp. 954~956.

Patents

Granted:

1. Han-Ping Shieh, **Yi-Pai Huang**, Jun-Jie Chen, "Multi-directional microoptical light control film for reflective LCD application." US 6,421,105 B1, July, 2002.
2. **黃乙白**, 吳詩聰, 蘇睦仁, 謝漢萍, "具光反射影像增強層於穿透區域的單液晶盒厚透反式液晶顯示器", 中華民國專利新型第 221747 號, 民國 93 年 7 月.
3. **黃乙白**, 謝漢萍, 吳詩聰, "具無序光柵結構之新型光控制元件以提升反射式/透反式液晶顯示器之反射影像品質", 中華民國新型專利審查核准, 申請案號 092216002, 民國 93 年 7 月.

Pending:

1. **黃乙白**, 陳俊傑, 謝漢萍, "多元微型光學光控制薄膜應用於反射式顯示器", (中華民國專利申請中)
2. **黃乙白**, 陳俊傑, 謝漢萍, "應用於反射式顯示器之前光模組", (美國&中華民國專利申請中)
3. **Yi-Pai Huang**, Xin-Yu Zhu, Shin-Tson Wu, Han-Ping Shieh, "Single Cell Gap Transflective Liquid Crystal Display with Reflector above Transmissive Pixels", US

Patent pending.

4. Shin-Tson Wu, **Yi-Pai Huang**, Hong-Wen Ren, Xin-Yu Zhu, Han-Ping Shieh, “Full Color Cholesteric Liquid Crystal Display With Slant Reflectors above Transmissive Pixels”, US Patent pending.
5. **黃乙白**, 謝漢萍, 吳詩聰, 蘇睦仁, "具前置薄膜電晶體與不連續導電玻璃 ITO 之單液晶盒厚透反式液晶顯示器", (中華民國專利申請中)

Other Publications

1. **黃乙白**, 謝漢萍, “親愛的，我把電視帶著走 - 可攜帶式的液晶顯示器”. 國科會科學發展月刊第 382 期(2004 年 10 月號).
2. **黃乙白**, 謝漢萍, “平面顯示技術的飛躍-國際資訊顯示器學會年會與展覽”. 電子月刊第 107 期(2004 年 6 月號). pp. 130~140.
3. **黃乙白**, 蘇睦仁, 謝漢萍, “多元非對稱微透鏡陣列光控制薄膜在反射式液晶顯示器的應用”. 光學工程季刊第 79 期 2002 年九月號.
4. **黃乙白**, 柯富仁, 謝漢萍, “應用多向非對稱微透鏡陣光控膜的高亮度反射式彩色 STN-LCD”. 現代顯示雜誌第 31 期(2002 年第一期). pp.34~37.

Awards

2004 – SID’04 Distinguished Student Paper Award, May 2004, Seattle, WA, U.S.A.

2003 – 台灣光電科技研討會(OPT’03)優良學生論文獎.

2002 – 台灣光電科技研討會(OPT’02)最佳學生論文獎.

2002 – SID’01 Best Student Paper Award, May 2002, Boston, MA, U.S.A.

2002 – 教育部九十年度 [機電設計與整合] 專題製作競賽全國優選.

2001 – 光電工業教學資源中心 90 年度專題實作競賽第一名.

Vita

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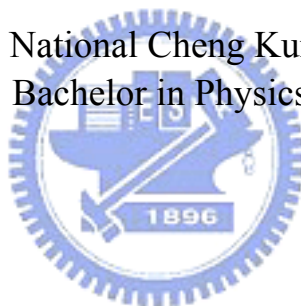
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Education

Sep. 99' – Presnt : National Chiao Tung University, Hsinchu, Taiwan.
Ph. D. in Institute of Electro-Optical Engineering.

Sep. 95' – Jun. 99' : National Cheng Kung University, Tainan, Taiwan.
Bachelor in Physics.



Experience

May. 03' – Sep. 03' : Exercise assistant of 2003 FPD training course, the display institute, National Chiao Tung University, Hsin-Chu, Taiwan.

Dec. 01' – May. 02' : Visiting scholar at the Optical School, University of Central Florida, Florida, U.S.A.

Feb. 01' – Feb. 01' : Short-term visiting student of Taiwan-Japan visiting youth group.