

Curriculum Vitae

Hua-Ping Lin

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OBJECTIVE

Post doctorate position in Organic Optoelectronic Devices (OLED, OTFT and OPV)

EDUCATION

- **Ph.D. in Organic Light-Emitting Devices (OLED)**, Department of Materials Science, Shanghai University, P. R. China Expected in June 2012
 - Thesis: "Organic light-emitting diodes and their electroluminescent characteristics"
 - Supervisor: Prof. Xue-Yin Jiang and Prof. Zhi-Lin Zhang
 - Research: Fabrication of OLED devices and integration of TFT array with OLED
- **Master in Material Science (Experimental Experience)**, Centre of Laser Fusion Research, China Academy of Engineering Physics January/2007 - July/2009
 - Thesis: "Researches of the properties of Niobium films deposited by DC magnetron sputtering"
 - Supervisor: Prof. Wei-Dong Wu and Associate Prof. Zhi-Bing He
 - Research: Fabrication of nanostructure thin film via DC magnetron sputtering and characterization including SEM, XRD, XPS, AFM and EL spectra
- **Master in Theoretical Physics (Basic Course)**, Department of Physics and Electronic Information, China West Normal University, September/2006 - January/2007
 - Supervisor: Prof. Jia-Jun Chen
- **Bachelor of Science in Physics**, Department of Physics and Electronic Information, China West Normal University, September/2001 - July/2005

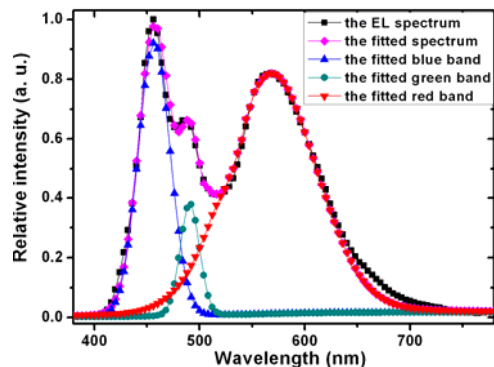
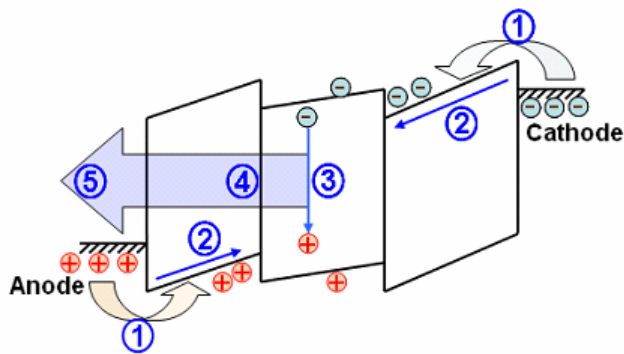
RESEARCH INTERESTS

- Developing High-Performance OLED, OTFT and OPV
- Unraveling the morphology of hetero-junction interface
- Developing Novel Methods For Lighting and Displays
- Color Science

RESEARCH FOCUS

Charge transport along and across interfaces is central to the operation of organic electronic and optoelectronic devices, including organic light-emitting devices (OLED), field effect transistors (OFET), and photovoltaic cells (OPV). Many improvements in organic devices as well as understanding of underlying physics mechanism of charge transport and

luminescence have been realized in our group.



My current research interests are on the development of AM-OLED matrix display based on Oxide TFT. Continued expansion of organic optoelectronics in displays, solid-state lighting, flexible electronics, and solar energy conversion. My long-term interests are on determining the structure-property relationships at organic optoelectronic interfaces, and employing this knowledge to improve the performance of organic devices.

To further understand the exciting new technology, I am glad to join a cross-discipline team with complementary expertise organic materials synthesis, structure characterization, spectroscopy, charge transport, computation, device fabrication and modeling.

TECHNICAL SKILLS

- Preparation of OLED devices by Thermal Evaporation.
- Maintenance of Evaporation (PVD & CVD) and Vacuum Systems.
- Growth of nanostructure thin film by PVD and CVD.
- Structural, Optical and Electrical characterization by using several sophisticated characterization tools, such as SEM, XRD, XPS, UPS, AFM and Spectra.

ACADEMIC HONORS

- Material Star Award from Shanghai University, December 2011.
- Best Research Award (Choi Koon Shun) from Shanghai University, October 2011.
- Ph.D. Scholarship from Shanghai University for consecutive 3 years, 2009-2012.
- Alumni Scholarship from Shanghai University, April 2010.
- Excellent Graduates Award from Sichuan Province Government, July 2009.
- Best Design Award of Challenge Cup Competition from Sichuan Province Government, July 2009.
- Best Research Award from China West Normal University, November 2008.
- Platinum Research Scholarship from China Academy of Engineering Physics, July 2008.
- Special reward awarded from China West Normal University for rescue and volunteer in 5.12 Sichuan Earthquake, 2008.

REFERENCES

PROF. Xue-Yin Jiang and PROF. Zhi-Lin Zhang (Ph.D. supervisor)

Professor in Department of Materials Science
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Prof. Jiang and Prof. Zhang are famous researchers of OLED display, TFT and display electronics technology in China. They have devoted much effort in promoting OLED technology and industries through consulting with venture capital firms, government agencies, and industrial companies. They exhibited China's first active matrix OLED display in 1999 SID.

ASSOCIATE PROF. Zhi-Bing He (Master's Experimental Supervisor)

Associate Professor in Centre of Laser Fusion Research

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PROF. Jia-Jun Chen (Master's Supervisor)

Professor in Department of Physics and Electronic Information

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Publications

A) Publications with peer review process

1. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xiao-Wen Zhang, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Jian-Hua Zhang, Effects of green emission on the performance of white organic light-emitting devices and their electroluminescent characteristics, ***Journal of Physical Chemistry C***, 115 (2011) 24341. IF:4.524, Index in SCI. In press.
2. **Hua-Ping Lin**, Xiao-Wen Zhang, Dong-Bin Yu, Jun Li, Liang Zhang, Fan Zhou, Xue-Yin Jiang, Zhi-Lin Zhang, A high performance of BPhen-based white organic light-emitting devices with a dual-emitting layer and its electroluminescent spectral property, ***Journal of Industrial and Engineering Chemistry***, 17 (2011) 675. IF:2.149, Index in SCI. In press.
3. **Hua-Ping Lin**, Fan Zhou, Xiao-Wen Zhang, Dong-Bin Yu, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Enhanced color stability and improved performance in white organic light-emitting devices by utilizing a double-graded structure, ***Synthetic Metals***, 161 (2011) 1133. IF:1.962, SCI: 000292676600033; EI: 20112314036996.
4. **Hua-Ping Lin**, Dong-Bin Yu, Xiao-Wen Zhang, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Enhanced hole injection and improved performance in organic light-emitting devices by utilizing a novel composite hole injection layer, ***Solid State Communications***. 150 (2010) 1601. IF:1.979, SCI: 000281216800002; EI: 20103313150340.
5. **Hua-Ping Lin**, Fan Zhou, Xiao-Wen Zhang, Dong-Bin Yu, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Efficient hole injection in blue organic light-emitting devices by using a

double hole injection layer to improve chromaticity and electrical characteristics, **Current Applied Physics**.11 (2011) 853, IF:1.740, SCI: 000288183300114; EI: 20110813682437.

6. **Hua-Ping Lin**, Dong-Bin Yu, Xiao-Wen Zhang, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Enhancing color purity and efficiency of white organic light-emitting diodes using a double emitting layer, **Semiconductor Science and Technology**. 25 (2010) 105004. IF:1.323, SCI: 000281899900005; EI: 20105013484012.

7. **Hua-Ping Lin**, Fan Zhou, Xiao-Wen Zhang, Dong-Bin Yu, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, White Organic Light-Emitting Diodes Based on C545T Doped Emitting System, **Physica status solidi (A)**. IF:1.458, Index in SCI. DOI :10.1002/pssa.201127520.

8. **Hua-Ping Lin**, Xiao-Wen Zhang, Dong-Bin Yu, Jun Li, Liang Zhang, Fan Zhou, Xue-Yin Jiang, Zhi-Lin Zhang, A simple method of fabricating efficient blue organic light-emitting diodes based on a double-dopant and a double-emissive layer with an effective hole-trapping architecture, **Journal of Optoelectronics and Advanced Materials**. 12 (2010) 2355. IF:0.433, SCI: 000286043000002.

9. **Hua-Ping Lin**, Fan Zhou, Xiao-Wen Zhang, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Enhanced chromaticity and improved efficiency in blue organic light-emitting device by utilizing an adjustable chromaticity layer, submitted and revised.

10. **Hua-Ping Lin**, Wei-Dong Wu, Zhi-Bing He, Hua Xu, Jun Li, Feng Wang, Effects of thickness on microstructure and properties of Niobium films deposited by DC magnetron sputtering, **High power laser and particle beams**. 20 (2008) 413, EI: 082211286249.

11. **Hua-Ping Lin**, Zhi-Bing He, Wei-Dong Wu, Jun Li, Feng Wang. Recent progress in Silicon Series Solar Thin Film Battery. **Journal of Material Review**. 3 (2008) 1-4.

12. Fan Zhou, **Hua-Ping Lin**, Liang Zhang, Jun Li, Xiao-Wen Zhang, Dong-Bin Yu, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Top-gate amorphous IGZO thin-film transistors with a SiO buffer layer inserted between active channel layer and gate insulator, **Current Applied Physics**, 12 (2011) 228. IF:1.740, Index in SCI.

13. Fan Zhou, **Hua-Ping Lin**, Jun Li, Liang Zhang, Xiao-Wen Zhang, Dong-Bin Yu, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, The influence of the SiO₂ gate insulator thickness to the performance and Bias voltage stress stability of ZnO thin-film-transistors, **Journal of Optoelectronics and Advanced Materials**, 13 (2011) 797. IF:0.433, Index in SCI.

14. Xiao-Wen Zhang, **Hua-Ping Lin**, Jun Li, Liang Zhang, Bing Wei, Xue-Yin Jiang, Zhi-Lin Zhang, A very simple method of constructing efficient inverted top-emitting organic light-emitting diode based on Ag/Al bilayer reflective cathode, **Journal of Luminescence**, 132 (2012) 1. IF:1.795, Index in SCI.

15. Jun Li, **Hua-Ping Lin**, Fan Zhou, Wen-Qing Zhu, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, Suppression of bias stress-induced degradation of pentacene-TFT using MoO_x interlayer, **Current Applied Physics**, 12 (2012) 280. IF:1.740, Index in SCI.

16. Dong-Bin Yu, **Hua-Ping Lin**, Xiao-Wen Zhang, Jun Li, Liang Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, High-efficiency and low-voltage organic light-emitting device with a composite hole transport layer, **Journal of Optoelectronics Laser**. 22 (2011) 34. EI: 20110813685155.

17. Jun Li, Fan Zhou, **Hua-Ping Lin**, Wen-Qing Zhu, Xue-Yin Jiang, Zhi-Lin Zhang, Tuning the contact resistance in organic thin-film transistors with an organic–inorganic hybrid interlayer, **Superlattices and Microstructures**. 50 (2011) 191. IF:1.109, Index in SCI.

18. Jun Li, Xiao-Wen Zhang, Liang Zhang, **Hua-Ping Lin**, Hao Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, The feasibility of using an Al-alloy film as the source/drain electrode in a microcrystalline silicon thin-film transistor, ***Solid State Communications***. 150 (2010) 1560. IF:1.979. Index in SCI.
19. Xiao-Wen Zhang, Jun Li, Liang Zhang, **Hua-Ping Lin**, Wen-Qing Zhu, Xue-Yin Jiang, Zhi-Lin Zhang, Improved performance of Si-based top-emitting organic light-emitting device using MoO(x) buffer layer, ***Synthetic Metals***, 160 (2010) 788. IF:1.962, Index in SCI.
20. Liang Zhang, Jun Li, Xiao-Wen Zhang, Dong-Bin Yu, **Hua-Ping Lin**, Khizar-ul-Haq, Xue-Yin Jiang, Zhi-Lin Zhang, The influence of the SiO(2) deposition condition on the ZnO thin-film transistor performance, ***Superlattices and Microstructures***. 48 (2010) 198. IF:1.109, Index in SCI.
21. Jing Wang, Wen Wan, Hai-zhen Jiang, Yan Gao, Xue-Yin Jiang, **Hua-Ping Lin**, Wei-ming Zhao, C-9 Fluorenyl Substituted Anthracenes: A Promising New Family of Blue Luminescent Materials, ***Organic Letters***. 12 (2010) 3874. IF:5.250, Index in SCI.

B) Publications without peer review process

1. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xiao-Wen Zhang, Xue-Yin Jiang, Zhi-Lin Zhang, High efficiency fluorescent green organic light-emitting device, ***Proceedings of 2011 China Display / Asia Display Conference***, P.R. China, November 2011, 514 PP.
2. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, The doping contraction effects on the performance of blue organic light-emitting devices. ***Proceedings of the 7 th Chinese organic molecules and polymer light-emitting material and their opto-electric properties***, P.R. China, October 2011, 189 PP.

C) P.R. China Patents

1. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, A double hole injection layer structure for blue organic light-emitting diodes. (Application No 201110146233.9)
2. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, A novel double-graded emission layer structure for white organic light-emitting diodes. (Application No 201110146234.3)
3. **Hua-Ping Lin**, Fan Zhou, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, An adjustable chromaticity layer structure for blue organic light-emitting diodes. (Application No 201110146271.4).
4. Fan Zhou, **Hua-Ping Lin**, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, Top-gate structure thin-film transistors with buffer layers. (Application No 201110146477.7)
5. Fan Zhou, **Hua-Ping Lin**, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, A novel etch stopper for fabricating arrays of oxide thin-film transistors in wet etch process. (Application No 201110146553.4).
6. Fan Zhou, **Hua-Ping Lin**, Jun Li, Xue-Yin Jiang, Zhi-Lin Zhang, A novel layer-built electrodes based on fabrication of oxide thin-film transistors arrays. (Application No 201110146555.3)