***Curriculum***

***Vitae***

**Dongyang Chen**

Date of Birth: 03/01/1992

Gender: Male

Address: 55 Cupar road, Guardbridge, St. Andrews

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**Education**

2016.9 - present: PhD student. School of Chemistry, University of St. Andrews, St. Andrews. UK

2013.9 - 2016.6: Master. Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, China

2009.9 - 2013.6: Bachelor. School of Materials Science and Engineering, Beijing Institute of Technology, Beijing, China

**Research Background:**

* Phd candidate (2016.9-present), Training in *Organic & Organometallic Optoelectronic Materials Laboratory, School of Chemistry, University of St. Andrews, UK.* Supervised by Professor Eli Zysman-Colman

**Research on Thermally Activated Delayed Fluorescence (TADF) materials**

Designing and synthesis TADF emitters and TADF related materials such as TADF liquid crystals, host materials for TADF emitters.

* Master (2013.9-2016.6), Trained in *Nano-Organic Photoelectronic Laboratory, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, China.* Supervised by Professor Zhang Xiaohong.

**Research on TADF materials**

Investigated the mechanism of up-conversion from triplet excited state to singlet excited state via thermal activated process and developing novel thermally activated delayed fluorescence materials for high efficient and low rolling-off OLEDs.

* Bachelor (2010,9 -2013.6) Trained in Functional organic molecular laboratory, *School of Materials Science and Engineering, Beijing Institute of Technology, Beijing, China.* Supervised by Professor Dong Yuping.

**Research on conjugated polymer and polyelectrolyte based on Aggregation Induced (AIE) Emission unit.**

Designed and synthesized a serial of conjugated polymer and polyelectrolyte based on substituted tetraphenylethylen and developed the application for biological detection.

**Specialized Skills:**

* Good knowledge of organic electronics and photochemistry, and strong laboratory capabilities.
* Proficient in fabrication and characterization techniques for OLEDs.
* Proficient in organic synthesis and characterization of related physical and chemical properties of organic semiconductor materials.

**Selected Publications:**

(1) **Chen, D. Y.**; Liu, W.; Zheng, C. J.; Wang, K.; Li, F.; Tao, S. L.; Ou, X. M.; Zhang, X. H. Isomeric Thermally Activated Delayed Fluorescence Emitters for Color Purity-Improved Emission in Organic Light-Emitting Devices. *ACS Appl. Mater. Interfaces* **2016**, *8* (26), 16791–16798.

(2) Liu, W.; Zheng, C. J.; Wang, K.; Chen, Z.; **Chen, D. Y.**; Li, F.; Ou, X. M.; Dong, Y. P.; Zhang, X. H. Novel Carbazol-Pyridine-Carbonitrile Derivative as Excellent Blue Thermally Activated Delayed Fluorescence Emitter for Highly Efficient Organic Light-Emitting Devices. *ACS Appl. Mater. Interfaces* **2015**, *7* (34), 18930–18936.

(3) Liu, W.; Chen, J.-X.; Zheng, C.-J.; Wang, K.; **Chen, D.-Y.**; Li, F.; Dong, Y.-P.; Lee, C.-S.; Ou, X.-M.; Zhang, X.-H. Novel Strategy to Develop Exciplex Emitters for High-Performance OLEDs by Employing Thermally Activated Delayed Fluorescence Materials. *Adv. Funct. Mater.* **2016**, *26* (12), 2002–2008.

(4) Liu, W.; Zheng, C. J.; Wang, K.; Zhang, M.; **Chen, D. Y.**; Tao, S. L.; Li, F.; Dong, Y. P.; Lee, C. S.; Ou, X. M.; et al. High Performance All Fluorescence White Organic Light Emitting Devices with a Highly Simplified Structure Based on Thermally Activated Delayed Fluorescence Dopants and Host. *ACS Appl. Mater. Interfaces* **2016**, *8* (48), 32984–32991.

(5) **Chen, D. Y.**; Liu, W.; Wang, K.; Zheng, C. J.; Zhang, X. H. Synthesis and Application in Organic Light Emitting Diodes of Thermally Activated Delayed Fluorescence Molecules Based on 1,3-Indione as Acceptor. *Imaging Science and Photochemistry* **2017,** *35,* 698-711.

(6) **Chen, D. Y.;** Shi, J. B.; Wu, Y. M.; Tong, B.; Zhi, J. G.; Dong, Y. P. (2013). An AIEE polyelectrolyte as a light-up fluorescent probe for heparin sensing in full detection range. *Science China Chemistry* **2013** *56*(9), 1239-1246.