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Academic Qualification

Ph.D. in Materials Technology, City University of Hong Kong

Teaching Area

Advanced Display and Lighting Technologies

Materials Characterization Techniques

Thin Film Technologies

Research Area

Organic Light Emitting Diode for Display and Lighting

Perovskite Light Emitting Diode

Flexible OLED and its Thin Film Encapsulation

Semiconductor Surface and Interface

Working Experience

2003-2013, Senior Research Fellow, City University of Hong Kong, Hong Kong, China

2014-present, Professor, Institute of Functional Nano and Soft Materials (FUNSOM), Soochow University, Suzhou, China

2021-present, Professor, Faculty of Innovation Engineering, Macau University of Science and Technology, Macau, China

Academic Publication (selected)

Shuang-Qiao Sun, Jing-Jing Shen, Yu-Fei Wang, Yu-Tong Jiang, Lin-Fu Chen, Hua Xin, Jiang-Nan Wang, Xiao-Bo Shi, Xiao-Zhao Zhu, Qi Sun, Liang-Sheng Liao, Qian Chen*, **Man-Keung Fung***, Shuit-Tong Lee*, Red Organic Light-Emitting Diodes based Photobiomodulation Therapy Enabling Prominent Hair Growth, *Nano Res.*, 2023, doi.org/10.1007/s12274-022-5315-1.

Shuang-Qiao Sun, Qi Sun, Yu-Jin Ji, Yan-Lin Xu, Wei He, Min Zhu, Jun-Gui Zhou, You-Jun Yu, Dan-Dan Feng, Yue-Min Xie* You-Yong Li* and **Man-Keung Fung***, Multidentate Molecule Anchoring Halide Perovskite Surface and Regulating Crystallization Kinetics toward Efficient Light-Emitting Diodes. *Small*, DOI: 10.1002/smll.202205336.

Chen-Zong Yang, Ze-Hui Pan, Kai Zhang, Jing-Wen Tai, Chuankui Wang*, Lei Ding*, **Man-Keung Fung*** and Jian Fan*, Intramolecular charge transfer effect for highly efficient deep red and near infrared thermally activated delayed fluorescence, *Mater. Horiz.*, 2023, DOI: 10.1039/D2MH01015A

Zheng-Yu Tao, Ze-Hui Pan, Ying-Jie Wang, Jialing Zhang, Qing-Song Wang, Qian-Feng Zhang, Bi-Hai Tong*, **Man-Keung Fung*** and Hui Kong*, Molecular engineering with triptycene groups endows homoleptic Ir(III) complexes with enhanced electroluminescence properties. *Inorg. Chem. Front.*, 2023, 10, 49.

Xiao Zhang, Jiao-Yang Li, Kai Zhang, Lei Ding*, Chuan-Kui Wang*, **Man-Keung Fung*** and Jian Fan*, Highly efficient thermally activated delayed fluorescence emitters with suppressed energy loss and a fast reverse intersystem crossing process. *J. Mater. Chem. C*, 2022, 10, 3685.

Jing-Feng Liu, Sheng-Nan Zou, Xing Chen, Sheng-Yi Yang, You-Jun Yu, **Man-Keung Fung***, Zuo-Quan Jiang* and Liang-Sheng Liao, Isomeric thermally activated delayed fluorescence emitters based on a quinolino[3,2,1-de]acridine-5,9-dione multiple resonance core and carbazole substituent. *Mater. Chem. Front.*, 2022, 6, 966.

Ya Wen, Ya-Kun Wang,* Jun-Gui Zhou, Jiao-Yang Li, Wei He, Yi-Jie Zhang, Xiao-Zhao Zhu, Liang-Sheng Liao* and **Man-Keung Fung***, Exciplex host coupled with a micro-cavity enabling high efficiency OLEDs with narrow emission profile. *J. Mater. Chem. C*, 2022, 10, 5666.

Ya-Kun Wang, Kamalpreet Singh, Jiao-Yang Li, Yitong Dong, Xue-Qi Wang, Joao M. Pina, You-Jun Yu, Randy Sabatini, Yang Liu, Dongxin Ma, Jun Liu, Zeke Liu, Yiyuan Gao, Oleksandr Voznyy,* Wanli Ma, **Man-Keung Fung**, Liang-Sheng Liao,* and Edward H. Sargent*, In Situ Inorganic Ligand Replenishment Enables Bandgap Stability in Mixed-Halide Perovskite Quantum Dot Solids. *Adv. Mater.*, 2022, 34, 2200854.

Jiao-Yang Li, Ya-Kun Wang*, Jun-Gui Zhou, Wei He, Xiao-Hao Dong, Chuan Zhang, Xiao-Bo Shi, Liang-Sheng Liao* and **Man-Keung Fung***, Efficient red organic LEDs via the combination of an exciplex host and micro-cavity. *Mater. Chem. Front.*, 2022, 6, 1623.

Dan-Dan Feng, Shuang-Qiao Sun, Wei He, Jun Wang, Xiao-Bo Shi and **Man-Keung Fung***, Hybrid Passivated Red Organic LEDs with Prolonged Operation and Storage Lifetime. *Molecules*, 2022, 27, 2607.

Wei He, Jun-Gui Zhou**, Shuang-Qiao Sun, **Man-Keung Fung***, Island-like random scattering layer for light extraction in organic light-emitting diodes with enhanced luminous efficiencies and angular spectral stability. *Materials Today Energy*, 2022, 28, 101068.

Shuang-Qiao Sun, Cheng Liu, Min Zhu, Yan-Lin Xu, Wei He, Dan-Dan Feng, Chen-Chao Huang, Qi Sun, Yue-Min Xie***, You-Yong Li**, **Man-Keung Fung***, Electric field induced degradation in sky-blue perovskite light-emitting diodes. *Materials Today Energy*, 2022, 29, 101139.

Zheng-Yu Tao, Ze-Hui Pan, Ying-Jie Wang, Tian-Ling Fu, Hui-Hui Xu, Qian-Feng Zhang, Bi-Hai Tong*, **Man-Keung Fung****, Yong-Pan Tian***, Highly efficient and concentration-insensitive OLEDs based on alkyl sterically modified red homoleptic phenylphthalazine iridium complexes. *Dyes and Pigments*, 2022, 207, 110751.

Shuang-Qiao Sun, **Man-Keung Fung*** and Shuit-Tong Lee*, Photoelectron spectroscopic studies on metal halide perovskite materials. *J. Vac. Sci. Technol. A*, 2022, 40, 060801.

Jing-Xing Liang, Ze-Hui Pan, Kai Zhang, Dezhi Yang, Jing-Wen Tai, Chuan-Kui Wang*, **Man-Keung Fung***, Dongge Ma*, JianFan*, A Facile Method to Achieve Red Thermally Activated Delayed Fluorescence Emitters with EQE Over 30% via Molecular Aspect Ratio Engineering, *Chem. Eng. J.*, 2022, doi.org/10.1016/j.cej.2022.141074.

Jin-Feng Cheng, Ze-Hui Pan, Kai Zhang, Yue Zhao, Chuan-Kui Wang*, Lei Ding*, **Man-Keung Fung***, Jian Fan*, Interrupted intramolecular donor-acceptor interaction compensated by strong through-space electronic coupling for highly efficient near-infrared TADF with emission over 800 nm, *Chem. Eng. J.*, 2022, 430, 132744.

Lei Cai, Jungui Zhou, Guilin Bai, Jiaqing Zang, Abdelhamid El - Shaer, Tao Song*, **Man-Keung Fung***, Baoquan Sun*, High - Efficiency Top - Emitting Green Perovskite Light Emitting Diode with Quasi Lambertian Emission, *Adv. Opt. Mater.*, 2022, 10, 2101137.

Books

Man-Keung Fung, Chun-Sing Lee, and Shuit-Tong Lee, "Interfaces in Organic Electronic Devices – New Insights to Traditional Concepts" in "Organic Electronics: Materials, Processing, Devices and Applications", Edited by Franky So, CRC Press (2009).

Man-Keung Fung, Chun-Sing Lee, and Shuit-Tong Lee, "Metal/Polymer Interface Studies for Organic Light-Emitting Devices" in "Electroluminescence – From Synthesis to Devices", Edited by Klaus Müllen and Ullrich Scherf, Wiley-VCH Verlag GmbH & Co. KGaA (2006).

M.F. Lo, T. W. Ng, **M.K. Fung**, S. L. Lai, M. Y. Chan, C. S. Lee, and S. T. Lee, "Implications of interfacial electronics to performance of organic photovoltaic devices" in "WOLEDs and Organic Photovoltaics - Recent Advances and Application", edited by Yam, Vivian W. W., Springer (2010).

Patents (selected)

馮敏強, 黃晨超, 史曉波; 一種有機發光器件及其制備方法、發光裝置; 中國發明專利 (授權); ZL201910982631.0; 2022.08.23

馮敏強, 周俊貴, 華曉晨; 一種有機發光器件及其制備方法; 中國發明專利 (授權); ZL201920982876.3; 2022.03.22

Professional Certification and Awards

Second Prize, China Industry-University-Research Cooperation Innovation Award, 2022

Second Prize, Invention Award (Chinese Institute of Electronics), 2022
The Top Ten Innovative Pioneer in Suzhou, 2018
The Six Major Talents Summit of Jiangsu Province, 2017
Science and Technology Leadership Award in Wujiang Suzhou, 2016
High-Level Innovation & Entrepreneurship Talents of Jiangsu Province, 2016
High-level Talents in Colleges and Universities of Suzhou, 2015

Student Awards

N/A

Professional Society Membership

Editorial Board Member, SCI Journal "Molecules" (Impact factor: 4.927); 2020-
Committee Member, the Society for Information Display (Beijing Chapter), 2017-
Member, the Society for Information Display, 2017-