

**Publications:** (\* corresponding author)

**2020**

1. *Ultrafast laser-annealing of perovskite films for efficient perovskite solar cells*, Peng You, Guijun Li, Guanqi Tang, Jiupeng Cao, **Feng Yan\***, [Energy Environ. Sci.](#) DOI: [10.1039/C9EE02324K \(2020\)](https://doi.org/10.1039/C9EE02324K).
2. *Electrolyte-gated transistors for synaptic electronics, neuromorphic computing, and adaptable biointerfacing*, H Ling, DA Koutsouras, S Kazemzadeh, Y van de Burgt, **F Yan\***, P. Gkoupidenis\*, [Appl. Phys. Rev.](#) [7 \(1\), 011307 \(2020\)](#).
3. *Organic electrochemical transistor arrays for real-time mapping of evoked neurotransmitter release in vivo*, K Xie, N Wang, X Lin, Z Wang, X Zhao, P Fang, H Yue, J Kim, J Luo, S Cui, **F.Yan\***, P. Shi\*, [eLife](#) [9, e50345 \(2020\)](#).
4. *Ultraviolet-to-microwave room-temperature photodetectors based on three-dimensional graphene foams*, Y Li, Y Zhang, Y Yu, Z Chen, Q Li, T Li, J Li, H Zhao, Q Sheng, **F Yan**, Zhen Ge, Yuxin Ren, Yongsheng Chen, Jianquan Yao, [Photonics Research](#) [8 \(3\), 368-374 \(2020\)](#).

**2019**

5. *Antioxidant grain passivation for air stable tin - based perovskite solar cells*, Q Tai, X Guo, G Tang, P You, TW Ng, D Shen, J Cao, CK Liu, N Wang, Ye Zhu, Chun-Sing Lee, **Feng YAN\***, [Angewandte Chemie International Edition](#), [58, 806-810 \(2019\)](#).
6. *Functionalized Organic Thin Film Transistors for Biosensing*, Naixiang Wang, Anneng Yang, Ying Fu, Yuanzhe Li, and **Feng Yan\***, [Acc. Chem. Res.](#) [52 \(2\), 277–287\( 2019\)](#)
7. *Solution-Phase Epitaxial Growth of Perovskite Films on 2D Material Flakes for High-Performance Solar Cells*, Guanqi Tang, Peng You, Qidong Tai, Anneng Yang, Jiupeng Cao, Fangyuan Zheng, Zhiwen Zhou, Jiong Zhao, Paddy Kwok Leung Chan and **Feng Yan\***, [Adv. Mater.](#) [31, 1807689, \(2019\)](#).
8. *Recent Progress of Inorganic Perovskite Solar Cells*, Q Tai, T Kai-Chi, **Feng Yan\***, [Energy Environ. Sci.](#) [12, 2375-2405 \(2019\)](#).
9. *Perovskite-Based Phototransistors and Hybrid Photodetectors*, Chao Xie, Chun-Ki Liu, Hok-Leung Loi, **Feng Yan\***, [Adv. Funct. Mater.](#) DOI: [10.1002/adfm.201903907 \(2019\)](https://doi.org/10.1002/adfm.201903907).
10. *Sn-Based Perovskite for Highly Sensitive Photodetectors*, Chun-Ki Liu, Qidong Tai, Naixiang Wang, Guanqi Tang, Hok-Leung Loi, **Feng Yan\***, [Adv. Sci.](#) [6, 1900751 \(2019\)](#).
11. *Two-dimensional materials in perovskite solar cells*, P You, G Tang, **F Yan\***, [Materials Today Energy](#) [11, 128-158 \(2019\)](#)

12. *Inkjet printed pseudocapacitive electrodes on laser-induced graphene for electrochemical energy storage*, G. J. Li, Z. Meng, J. S. Qian, C. -L. Ho, S. P. Lau, W. Y. Wong\*, **F. Yan\***, *Materials Today Energy* **12**, 155-160 (2019).
13. *Efficiency Enhancement of Organic Photovoltaics by Introducing High-Mobility Curved Small-Molecule Semiconductors as Additives*, Shenghua Liu, Changqing Li, Xiaomin Xu, Peng You, Naixiang Wang, Jianfang Wang, Qian Miao and **Feng Yan\***, *J. Mater. Chem. A* **2019**, DOI: [10.1039/C9TA02636C](https://doi.org/10.1039/C9TA02636C).
14. *Hollow Au Nanorattles for Boosting the Performance of Organic Photovoltaics*, Zhiyong Bao, Shenghua Liu, Yidong Hou, Aixue Shang, **Feng Yan\***, Yucheng Wu, Dangyuan Lei\*, Jiyan Dai\*, *J. Mater. Chem. A*, **7**, 26797-26803 (2019).
15. *Enhanced performance of tin-based perovskite solar cells induced by an ammonium hypophosphite additive*, J Cao, Q Tai, P You, G Tang, T Wang, N Wang, **Feng Yan\***, *J. Mater. Chem. A*, **7** (46), 26580-26585 (2019).
16. *Recent advances toward efficient and stable tin-based perovskite solar cells*, Qidong Tai, Jiupeng Cao, Tianyue Wang, **Feng Yan\***, *EcoMat*, **1** (1), e12004.
17. *Recent Progress in Printable Organic Field Effect Transistors*, W Tang, Y Huang, L Han, R Liu, Y Su, X Guo\*, **F Yan\***, *J. Mater. Chem. C* **7**, 790-808 (2019)
18. *Schottky Barrier-Controlled Black Phosphorus/Perovskite Phototransistors with Ultrahigh Sensitivity and Fast Response*, Xuming Zou, Yuanzhe Li, Guanqi Tang, Peng You, **Feng Yan\***, *Small*, **15**, 1901004, (2019).
19. *High-efficiency robust organic solar cells using transfer-printed PEDOT: PSS electrodes through interface bonding engineering*, X Fan, W Song, T Lei, B Xu, **F Yan**, N Wang, H Cui, Z Ge, *Mater. Chem. Front.*, **3**, 901-908 (2019).
20. *Dynamically reconfigurable short-term synapse with millivolt stimulus resolution based on organic electrochemical transistors*, Haifeng Ling, Naixiang Wang, Anneng Yang, Yanghui Liu, Jiajun Song, and **Feng Yan\***, *Adv. Mater. Technol.* **1900471** (2019).
21. *Biomimicking stretchable organic electrochemical transistor*, Yuanzhe Li, Naixiang Wang, Anneng Yang, Haifeng Ling, **Feng Yan\***. *Adv. Electron. Mater.* (2019).
22. *PEDOT: PSS for flexible and stretchable electronics: modifications, strategies, and applications*, Xi Fan, Wanyi Nie, Hsinhan Tsai, Naixiang Wang, Huihui Huang, Yajun Cheng, Rongjiang Wen, Liuji Ma, **Feng Yan**, Yonggao Xia, *Adv. Sci.*, **6**(19), 1900813 (2019)

23. *Characterization of structural transitions and lattice dynamics of hybrid organic-inorganic perovskite  $CH_3NH_3PbI_3$* , Feng Jin, Jian-Ting Ji, Chao Xie, Yi-Meng Wang, Shu-Na He, Lei Zhang, Zhao-Rong Yang, **Feng Yan**, Qing-Ming Zhang, **Chinese Phys. B**, 28 076102 (2019).

## 2018

24. *Solution-processable organic and hybrid gate dielectrics for printed electronics*, J. H. Li, W. Tang, Q. Wang, W. J. Sun, Q. Zhang, X. J. Guo\*, X. B. Wang, **F. Yan\***, **Materials Science & Engineering R.** **127**, 1-36 (2018) (IF=29.28, invited review).
25. *Fabric Organic Electrochemical Transistors for Biosensors*, A. N. Yang, Y. Z. Li, C. X. Yang, Y. Fu, N. X. Wang, L. Li,\* **F. Yan\***, **Adv. Mater.** **30**, 1800051 (2018).
26. *Highly sensitive, durable and stretchable plastic strain sensors using sandwich structures of PEDOT:PSS and elastomer*, X. Fan, N. X. Wang, J. Z. Wang, B. G. Xu and **F. Yan\***, **Mater. Chem. Front.**, **2**, 355-361, (2018).
27. Lasing Characteristics of  $CH_3NH_3PbCl_3$  Single-Crystal Microcavities under Multiphoton Excitation, D. Yang, C. Xie, X. Xu, P. You, **F. Yan\***, S. F. Yu\*, **Adv. Opt. Mater** **6** (3), 1700992 (2018).
28. Enhanced performance of perovskite/organic-semiconductor hybrid heterojunction photodetectors with electron trapping effect, C. Xie and **F. Yan\***, **J. Mater. Chem. C**, **6** (6), 1338-1342 (2018).
29. *Interfacial engineering of printable bottom back metal electrodes for full-solution processed flexible organic solar cells*, H. Zhen, K. Li, Y. Zhang, L. Chen, L. Niu, X. Wei, X. Fang, P. You, Z. Liu, D. Wang, **F. Yan**, Z. J. Zheng\*, **J. Semiconduct.**, **39**, 014002 (2018).
30. *Performance Enhancement of Perovskite Solar Cells Induced by Lead Acetate as an Additive*, Guanqi Tang, Peng You, Qidong Tai, Runsheng Wu, **Feng Yan\***, **Solar RRL**, **2** (6), 1800066 (2018).
31. *Highly Stable All-Inorganic Perovskite Solar Cells Processed at a Low Temperature*, Kai Chi Tang, Peng You, and **Feng Yan\***, **Solar RRL**, **2** (8), 1800075 (2018).
32. *A Transfer - Printed, Stretchable, and Reliable Strain Sensor Using PEDOT:PSS/Ag NW Hybrid Films Embedded into Elastomers*, Xi Fan, Naixiang Wang, **Feng Yan\***, Jinzhao Wang\*, Wei Song, Ziyi Ge\*. **Adv. Mater. Technol.** **3** (6), 1800030 (2018).
33. *Quantitative Determination of Contribution by Enhanced Local Electric Field, Antenna-Amplified Light Scattering and Surface Energy Transfer to the Performance of Plasmonic Organic Solar Cells*, Shenghua Liu, Yidong Hou, Wei Xie, Sebastian Schlücker, **Feng Yan\***, and Dang Yuan Lei\*, **Small**, **14** (30), 1800870 (2018).

34. *Organic Electrochemical Transistors for the Detection of Cell Surface Glycans*, Lizhen Chen, Ying Fu, Naixiang Wang, Anneng Yang, Yuanzhe Li, Jie Wu, Huangxian Ju\*, and **Feng Yan\***, *ACS Appl. Mater. Interfaces*, [10 \(22\), 18470–18477 \(2018\)](#).
35. *Organic Flexible Electronics*, Haifeng Lin, Shenghua Liu, Zijian Zheng and **Feng Yan\***, *Small methods* [2, 1800070 \(2018\)](#).
36. *Robust spin-valley polarization in commensurate MoS<sub>2</sub>/graphene heterostructures*, L. Du, Q. Zhang, B. Gong, M. Liao, J. Zhu, H. Yu, R. He, K. Liu, R. Yang, D. Shi, L. Gu, **Feng Yan**, G. Y. Zhang, and Q. M. Zhang\*, *Physical Review B*, [97, 115445 \(2018\)](#).
37. *All - Solution - Processed Metal - Oxide - Free Flexible Organic Solar Cells with Over 10% Efficiency*, Wei Song, Xi Fan, Bingang Xu, **Feng Yan**, Huiqin Cui, Qiang Wei, Ruixiang Peng, Ling Hong, Jiaming Huang, Ziyi Ge, *Adv. Mater.* [30, 1800075 \(2018\)](#).
38. *p-Doping of Copper(I) Thiocyanate (CuSCN) Hole-Transport Layers for High-Performance Transistors and Organic Solar Cells*, Nilushi Wijeyasinghe, Flurin Eisner, Leonidas Tsetseris, Yen-Hung Lin, Akmaral Seitkhan, Jinhua Li, **Feng Yan**, Olga Solomeshch, Nir Tessler, Panos Patsalas, and Thomas D. Anthopoulos\*, *Adv. Funct. Mater.* [\(2018\), 1802055](#).
39. *The detection of bisphenol A using DNA-functionalized graphene field effect transistors integrated in microfluidic systems*, S Liu, Y Fu, C Xiong, Z Liu, L Zheng, **F Yan\***, *ACS Applied Materials & Interfaces* [10 \(28\), 23522-23528 \(2018\)](#)
40. *Kinetically controlled redox behaviors of K<sub>0.3</sub>MnO<sub>2</sub> electrodes for high performance sodium-ion batteries*, J Qian, Y San Chui, G Li, M Lin, CM Luk, CH Mak, B Zhang, **F Yan**, Shu Ping Lau, *J. Mater. Chem. A* [6 \(23\), 10803-10812 \(2018\)](#).
41. *Low Temperature Fabrication for High Performance Flexible CsPbI<sub>2</sub>Br Perovskite Solar Cells*, H Jiang, J Feng, H Zhao, G Li, G Yin, Y Han, **F Yan**, Z Liu, S Liu, *Advanced Science* [5 \(11\), 1801117 \(2018\)](#).
42. *Organic Photo-Electrochemical Transistor-Based Biosensor: A Proof-of-Concept Study toward Highly Sensitive DNA Detection*, J Song, P Lin, YF Ruan, WW Zhao, W Wei, J Hu, S Ke, X Zeng, JJ Xu, Hong - Yuan Chen, Wei Ren, **Feng Yan**, *Adv. Healthcare mater.* [7 \(19\), 1800536 \(2018\)](#).
43. *Tunable Morphology of SrTiO<sub>3</sub> Nanomaterials Controlled by Surfactant Concentration*, Z Cong, B Lin, W Li, J Niu, F Yan, *J. Nanosci. Nanotech.* [18 \(11\), 7917-7922 \(2018\)](#).
44. *The Influence of Fiber Cross-Section on Fabric Far-Infrared Properties*, Y Tao, T Li, C Yang, N Wang, **F Yan**, L Li, *Polymers* [10 \(10\), 1147 \(2018\)](#).

45. *Emerging Semitransparent Solar Cells: Materials and Device Design*, Q. D. Tai and **F. Yan\***, [Adv. Mater.](#) **29**, 1700192 (2017).
46. *Conjugated Polymer for Voltage-Controlled Release of Molecules*, S. H. Liu, Y. Fu, G. J. Li, L. Li, H. K. W. LAW, X. F. Chen\*, **F. Yan\***, [Adv. Mater.](#) **29**, 1701733 (2017) ([Materials Views China](#))
47. *Highly Sensitive Detection of Protein Biomarkers with Organic Electrochemical Transistors*, Ying Fu, Naixiang Wang, Anneng Yang, Helen Ka-wai LAW, Li Li, **Feng Yan\***, [Adv. Mater.](#) **29**, 1703787 (2017)
48. *Black phosphorus quantum dots for boosting light harvesting in organic photovoltaics*, S. H. Liu, S. H. Lin, P. You, C. Surya, S. P. Lau\*, **F. Yan\***, [Angew. Chem. Int. Ed.](#) **56**, 13717–13721 (2017).
49. *Ultrasensitive Broadband Phototransistors Based on Perovskite/Organic-Semiconductor Vertical Heterojunctions*, C Xie, P You, Z Liu, L Li, **F Yan\***, [Light: Science & Applications](#) **6**, e17023 (2017) (Highlighted by [Light : Science & Applications](#))
50. *Photodetectors based on two-dimensional layered materials beyond graphene*, Chao Xie, Chunhin Mak, Xiaoming Tao, **Feng Yan\***, [Adv. Funct. Mater.](#) **27** (19), 1603886 (2017).
51. *Highly Conductive Stretchable All - Plastic Electrodes Using a Novel Dipping - Embedded Transfer Method for High - Performance Wearable Sensors and Semitransparent Organic Solar Cells*, X. Fan, B. Xu\*, N. Wang, J. Wang\*, S. Liu, H. Wang, **F. Yan\***, [Adv. Electronic Mater.](#) **3** (5), 1600471 (2017).
52. *Perovskite/Poly (3-hexylthiophene)/Graphene Multiheterojunction Phototransistors with Ultrahigh Gain in Broadband Wavelength Region*, C. Xie, **F. Yan\***, [ACS Appl. Mater. Interface.](#) **9** (2), 1569-1576 (2017).
53. *Current Status and Opportunities of Organic Thin-Film Transistor Technologies*, X. Guo, Y. Xu, S. Ogier, T. N. Ng, M. Caironi, A. Perinot, L. Li, J. Zhao, W. Tang, R. A Sporea, A. Nejim, J. Carrabina, P. Cain, **F. Yan**, [IEEE Transactions on Electron Devices](#) **64** (5), 1906-1921 (2017).
54. *Bias Stress Stability Improvement in Solution-processed Low-voltage Organic Field-effect Transistors Using Relaxor Ferroelectric Polymer Gate Dielectric*, W. Tang, J. Zhao, Y. Huang, L. Ding, Q. Li, J. Li, P. You, **F. Yan\***, X. Guo\*, [IEEE Electron Device Letters](#),**38** (6), 748-751 (2017).
55. *Wafer-Scale Synthesis of High-Quality Semiconducting Two-Dimensional Layered InSe with Broadband Photoresponse*, Z. Yang, W. Jie, C. H. Mak, S. Lin, H. Lin, X. Yang, **F. Yan**, S. P. Lau, J. Hao, [ACS Nano](#), **11**, 4225-4236, (2017).
56. *Solution-processed p-type copper (I) thiocyanate (CuSCN) for low-voltage flexible thin-film transistors and integrated inverter circuits*, L. Petti, P. Pattanasattayavong, Y. H. Lin, N. Münzenrieder, G. Cantarella, N. Yaacobi-Gross, **F. Yan**, G. Tröster, T. D. Anthopoulos, [Appl. Phy. Lett.](#) **110** (11), 113504 (2017).

57. *Highly sensitive detection of gallic acid based on organic electrochemical transistors with poly (diallyldimethylammonium chloride) and carbon nanomaterials nanocomposites functionalized gate electrodes*, C. Xiong, Y. Wang, H. Qu, L. Zhang, L. Qiu, W. Chen, F. Yan, L. Zheng\*, Sensors and Actuators B: Chemical **246**, 235-242 (2017).
58. *Versatile biomimetic haze films for efficiency enhancement of photovoltaic devices*, K. Li, Y. Zhang, H. Zhen, H. Wang, S. Liu, F. Yan, Z. Zheng\*, J. Mater. Chem. A, **5**, 969-974 (2017).
59. *Copper(I) Thiocyanate (CuSCN) Hole-Transport Layers Processed from Aqueous Precursor Solutions and Their Application in Thin-Film Transistors and Highly Efficient Organic and Organometal Halide Perovskite Solar Cells*, N. Wijeyasinghe, A. Regoutz, F. Eisner, T. Du, L. Tsetseris, Y. -H. Lin, H. Faber, P. Pattanasattayavong, J. H. Li, F. Yan, M. A. McLachlan, D. J. Payne, M. Heeney and T. D. Anthopoulos, Adv. Funct. Mater. **27**, 1701818 (2017).
60. *Lamellar Liquid-Crystalline System with Tunable Iridescent Color by Ionic Surfactants*, Zhenhua Cong, Bowen Lin, Weiqing Li, Jian Niu, and Feng Yan\*, Langmuir, **33**, 7147–7151 (2017).
61. *Flexible Photodetectors Based on Novel Functional Materials*, Chao Xie and Feng Yan\*, Small, **20**, 1701822 (2017).
62. *AC measurements using organic electrochemical transistors for accurate sensing*, Naixiang Wang, Yuzhe Liu, Ying Fu, Feng Yan\*, ACS Applied Materials & Interfaces **10** (31), 25834–25840 (2017).
63. *Tunable active edge sites in PtSe<sub>2</sub> films towards hydrogen evolution reaction*, S. H. Lin, Y. Liu, Z. X. Hu, W. Lu, C. H. Mak, L. H. Zeng, J. Zhao, Y. Y. Li, F. Yan, Y. H. Tsang, X. M. Zhang, S. P. Lau\*, Nano Energy, **42**, 26-33 (2017).
64. *A High-Performance, Self-Powered Photodetector Based on Perovskite and Graphene*, J. Li, S. Yuan, G. Q. Tang, G. J. Li, D. Liu, J. Li, X. Hu, Y. Liu, J. B. Li, Z. Yang, S. Z. Liu, Z. K. Liu\*, F. Gao\*, F. Yan\*, ACS Appl. Mater. Interfaces, **9**, 42779–42787 (2017).

## 2016

65. *Efficient and stable perovskite solar cells prepared in ambient air irrespective of the humidity*, Q. D. Tai, P. You, H. Q. Sang, Z. K. Liu, C. L. Hu, H. L.W. Chan and Feng Yan\*, Nature Comm. **7**:11105 (2016).
66. *Au/Ag Core-Shell Nanocuboids for High-Efficiency Organic Solar Cells with Broadband Plasmonic Enhancement*, Shenghua Liu, Ruibin Jiang, Peng You, Xingzhong Zhu, Jianfang Wang, and Feng Yan\*, Energy Environ. Sci. **9**, 898-905 (2016).
67. *Ultrathin and Flexible Perovskite Solar Cells with Graphene Transparent Electrodes*, Zhike Liu, Peng You, Chao Xie, Guanqi Tang, Feng Yan\*, Nano Energy, **28**, 151-157 (2016).

68. *Solution-Processable Ultrathin Black Phosphorus as an Effective Electron Transport Layer in Organic Photovoltaics*, S. H. Lin, S. H. Liu, Z. B. Yang, Y. Y. Li, T. W. Ng, Z. Q. Xu, Q. L. Bao, J. H. Hao, C. -S. Lee, C. Surya, **Feng Yan\***, Shu Ping Lau\*, *Adv. Funct. Mater.* **26**, 864-871 (2016).
69. *Mechanism of boron and nitrogen in situ doping during graphene chemical vapor deposition growth*, L. Wang, X. Y. Zhang, **Feng Yan\***, H. L.W. Chan, F. Ding,\* *Carbon*, **98**, 633–637 (2016).
70. *3D Bicontinuous Nanoporous Reduced Graphene Oxide for Highly Sensitive Photodetectors*, Y. Ito, W. Zhang, J. Li, H. Chang, P. Liu, T. Fujita, Y. Tan, **Feng Yan**, M. Chen, *Adv. Funct. Mater.* **26**, 1271–1277 (2016).
71. *Polymeric Carbon Nitride Nanosheets/Graphene Hybrid Phototransistors with High Responsivity*, S. K. Lai, C. Xie, K. S. Teng, Y. Y. Li, F. R. Tan, **Feng Yan** and S. P. Lau, *Adv. Opt. Mater* **4**, 555-561(2016).
72. *Amplified Spontaneous Emission from Organic-Inorganic Hybrid Lead Iodide Perovskite Single Crystals under Direct Multiphoton Excitation*, Decheng Yang, Chao Xie, Jianhui Sun, Hai Zhu, Xuhui Xu, Peng You, Shu Ping Lau, **Feng Yan\*** and Siu Fung Yu\*, *Adv. Opt. Mater* **4**, 1053-1059(2016).
73. *The influence of chloride on interdiffusion method for perovskite solar cells*, Shiqiang Luo, Peng You, Gaoda Cai, Hang Zhou, **Feng Yan**, Walid A. Daoud, *Mater. Lett.* **169**, 236–240 (2016).
74. *Transfer-Printed PEDOT:PSS Electrodes Using Mild Acids for High Conductivity and Improved Stability with Application to Flexible Organic Solar Cells*, Xi Fan, Bingang Xu\*, Shenghua Liu, Chaohua Cui, Jinzhao Wang, and **Feng Yan\***, *ACS Appl. Mater. Interfaces*, **8**, 14029–14036 (2016).
75. *Ferroelectric-driven performance enhancement of graphene field-effect transistor based on vertical tunnelling heterostructures*, Shuoguo Yuan, Zhibin Yang, Chao Xie, **Feng Yan**, Jiyan Dai, Shu Ping Lau, Helen L.W. Chan, and Jianhua Hao, *Adv. Mater.* **28**, 10048-10054 (2016).
76. *Printed light-trapping nanorelief Cu electrodes for full-solution-processed flexible organic solar cells*, K Li, Y Zhang, H Zhen, L Niu, X Fang, Z Liu, **F Yan**, W Shen, H Li, Z Zheng, *Materials Research Express* **3** (7), 074006 (2016).

## 2015

77. *Flexible Organic Electrochemical Transistors for Highly Selective Enzyme Biosensors and Used for Saliva Testing*, Caizhi Liao, Chunhin Mak, Meng Zhang, Helen L.W. Chan and **Feng Yan\***, *Adv. Mater.* **27**, 676-681 (2015).
78. *Flexible Organic Electronics in Biology: Materials and Devices*, Caizhi Liao, Meng Zhang, Mei Yu Yao, Tao Hua, Li Li\*, **Feng Yan\***, *Adv. Mater.* **27**, 7493-7527 (2015). (Most Accessed in 11/2014 in Adv. Mater.)

79. *Efficient Semitransparent Perovskite Solar Cells with Graphene Electrodes*, Peng You, Zhike Liu, Qidong Tai, Shenghua Liu, Feng Yan\*, Adv. Mater. 27, 3632-3638 (2015). (Most Accessed in 6/2015 in Adv. Mater.)
80. *Enhanced Efficiency in Polymer Solar Cells by Adding a High-Mobility Conjugated Polymer*, S. H. Liu, P. You, J. H. Li, J. Li, C. S. Lee, B. S Ong, C. Surya and Feng Yan\*, Energy Environ. Sci. 8, 1463-1470 (2015). (Most Read Articles in EES in 3/2015)
81. *Functionalized Graphene and Other Two-Dimensional Materials for Photovoltaic Devices: Device Design and Processing*, Zhike Liu, Shu-Ping Lau and Feng Yan\*, Chem Soc. Rev. 44, 5638-5679 (2015)
82. *Neutral-Color Semitransparent Organic Solar Cells with All-Graphene Electrodes*, Zhike Liu, Peng You, Shenghua Liu, and Feng Yan\*, ACS Nano 9, 12026-12034 (2015).
83. *Rigid and flexible organic electrochemical transistor arrays for monitoring action potentials from electrogenic cells*, C. L. Yao, Q. Li, J. Guo, Feng Yan and I-Ming Hsing, Adv. Healthcare Mater. 4, 528-533 (2015). (Materials Views)
84. *Highly sensitive glucose sensors based on enzyme-modified whole-graphene solution-gated transistors*, Meng Zhang, Caizhi Liao, Chun Hin Mak, Peng You, Chee Leung Mak & Feng Yan\*, Sci. Rep. 5, 8311, 1-6 (2015).
85. *Highly-sensitive epinephrine sensors based on organic electrochemical transistors with carbon nanomaterials modified gate electrodes*, Chun Hin Mak, Caizhi Liao, Ying Fu, Meng Zhang, Chun Yin Tang, Y. H. Tsang, H.L.W. Chan and Feng Yan\*, J. Mater. Chem. C 3, 6532-6538 (2015).
86. *High-Performance Solution-Processed Low-Voltage Polymer Thin-Film Transistors With Low-k/High-k Bilayer Gate Dielectric*, Wei Tang, Jinhua Li, Jiaqing Zhao, Weimin Zhang, Feng Yan\* and Xiaojun Guo, IEEE ELECTRON DEVICE LETTERS, 36, 950-952 (2015).
87. *Study of the Hole Transport Processes in Solution-Processed Layers of the Wide Bandgap Semiconductor Copper(I) Thiocyanate (CuSCN)*, P. Pattanasattayavong, A. D. Mottram, Feng Yan and T. D. Anthopoulos, Adv. Funct. Mater. 25, 6802-6813 (2015).
88. *Ultrasensitive and rapid screening of mercury(II) ions by dual labeling colorimetric method in aqueous samples and applications in mercury-poisoned animal tissues*, Yi Deng, Xin Wang, Feng Xue, Lei Zheng, Jian Liu, Feng Yan, Fan Xia, Wei Chen, Analytica Chimica Acta, 868, 45–52 (2015).

## 2014

89. *Photosensitive Graphene Transistors*, Jinhua Li, Liyong Niu, Zijian Zheng and Feng Yan\*, Adv. Mater. 26, 5239-5273 (2014) .
90. *High-Performance Dopamine Sensors Based on Whole-Graphene Solution-Gated Transistors*, Meng Zhang, Caizhi Liao, Yanli Yao, Zhike Liu,

- Fengfei Gong and Feng Yan\*, Adv. Funct. Mater. **24**, 978-985 (2014).  
(Materials Views China)
91. *Solution-Gated Graphene Transistors for Chemical and Biological Sensors*,  
Feng Yan\*, Meng Zhang and Jinhua Li, Adv. Healthcare Mater. **3**, 313-331 (2014)
92. *High-Performance Hole-Extraction Layer of Sol-Gel-Processed NiO Nanocrystals for Inverted Planar Perovskite Solar Cells*, Zonglong Zhu, Yang Bai, Teng Zhang, Zhike Liu, Xia Long, Zhanhua Wei, Zilong Wang, Lixia Zhang, Jiannong Wang, Feng Yan, and Shihe Yang\*, Angew. Chem. Int. Ed. **53**, 12571-12575 (2014).
93. *Full-Solution processed flexible organic solar cells using low-cost printable copper electrodes*, K. Li, H. Zhen\*, L. Niu, X. Fang, Y. Zhang, R. Guo, Y. Yu, Feng Yan, H. Li, Z. J. Zheng\*, Adv. Mater. **26**, 7271-7278 (2014).
94. *Influence of side-chain regiochemistry on the transistor performance of high-mobility, all-donor polymers*, Z. P. Fei, P. Pattanasattayavong, Y. Han, B. C. Schroeder, Feng Yan, R. J. Kline, T. D. Anthopoulos, and M. Heeney, J. Am. Chem. Soc. **136**, 15154-15157 (2014) .
95. *Two-dimensional material membranes: an emerging platform for controllable mass transport applications*, Yuda Zhao, Yizhu Xie, Zhike Liu, Xinsheng Wang, Yang Chai,\* and Feng Yan\*, Small **10**, 4521-4542 (2014).
96. *Salt-assisted high-throughput synthesis of single- and few-layer transition metal dichalcogenides and their applications in organic solar cells*, Liyong Niu, Kan Li, Hongyu Zhen, Ying-San Chui, Wenjun Zhang, Feng Yan, and Zijian Zheng\*, Small **10**, 4651-4657 (2014).
97. *Organic electrochemical transistors with graphene-modified gate electrodes for highly sensitive and selective dopamine sensors*, Caizhi Liao, Meng Zhang, Liyong Niu, Zijian Zheng and Feng Yan\*, J. Mater. Chem. B, **2**, 191-200 (2014).
98. *Solution-Processable Low-Voltage and Flexible Floating-Gate Memories Based on an n-Type Polymer Semiconductor and High-k Polymer Gate Dielectrics*, Jinhua Li, Feng Yan\*, ACS Appl. Mater. Interfaces, **6**, 12815-12820 (2014).
99. *Study of mechanical and dielectric spectrum in  $YFe_{1-x}Mn_xO_3$  ceramics*, W. L. Zhu, J. He, Y. M. Jin, R. X. Ti, T. T. Xu, C. Yue, F. Z. Huang, X. M. Lu, Feng Yan\* and J. S. Zhu\*, J. Appl. Phys. **115**, 033508 (2014).
100. *Highly luminescent covalently bonded layered double hydroxide-fluorescent dye nanohybrids*, L. Yan, Y. Wang, J. H. Li, S. Kalytchuk, A. S. Susha, S. V. Kershaw, Feng Yan, A. L. Rogach and X. F. Chen,\* J. Mater. Chem. C **2**, 4490-4494 (2014).
101. *Synthesis, characterization and photovoltaic properties of benzo[1,2-b:4,5-b']dithiophenebridged molecules*, X. Liu, S. Li, J. H. Li, J. Wang, Z. Tan, Feng Yan, H. Li, Y. H. Lo, C. H. Chui and W. Y. Wong, RSC Adv. **4**, 63260-63267 (2014).

102. *The role of the ethynylene bond on the optical and electronic properties of diketopyrrolopyrrole copolymers*, P. Pattanasattayavong, M. Sygletou, E. Kymakis, E. Stratakis, **Feng Yan**, V. G. Gregoriou, T. D. Anthopoulos and C. L. Chochos, [RSC Adv. 4, 58404-58411 \(2014\)](#).
103. *Ferromagnetic  $Y_2CoMnO_6$ : Spin-Glass-Like Behavior and Dielectric Relaxation*, Chao Zhang, Xiaofei Wang, Haitao Yan, Dawei Kang, Liben Li, Xiaomei Lu, Daofu Han, **Feng Yan** and Jinsong Zhu, [J. Electronic Mater. 43, 1071-1075 \(2014\)](#).

## 2013

104. *Package-Free Flexible Organic Solar Cells with Graphene top Electrodes*, Zhike Liu, Jinhua Li, and **Feng Yan\***, [Adv. Mater. 25, 4296-4301 \(2013\)](#). (Most Accessed paper in 4/2013 in Adv. Mater.)
105. *Formation and Healing of Vacancies in Graphene Chemical Vapor Deposition (CVD) Growth*, Lu Wang, Xiuyun Zhang, Helen L.W. Chan, **Feng Yan\*** and Feng Ding\*, [J. Am. Chem. Soc. 135, 4476–4482 \(2013\)](#).
106. *Hole-Transporting Thin-Film Transistors and Unipolar Circuits based on the Transparent Inorganic Semiconductor Copper(I) Thiocyanate ( $CuSCN$ ) Processed from Solution at Room Temperature*, P. Pattanasattayavong, N. Yaacobi-Gross, K. Zhao, G. O. N. Ndjawa, J. H. Li, **Feng Yan**, B. C. O'Regan, A. Amassian, and T. D. Anthopoulos\*, [Adv. Mater. 25, 1504-1509 \(2013\)](#).
107. *Organic Electrochemical Transistor Array for Recording Transepithelial Ion Transport of Human Airway Epithelial Cells*, Chunlei Yao, Changyan Xie, Peng Lin, **Feng Yan**, Pingbo Huang and I-Ming Hsing, [Adv. Mater. 25, 6575-6580 \(2013\)](#).
108. *Regulating Infrared Photoresponses in Reduced Graphene Oxide Phototransistors by Defect and Atomic Structure Control*, H.X. Chang\*, Z.H. Sun, M. Saito, Q.H. Yuan, H. Zhang, J.H. Li, Z.C. Wang, T. Fujita, F. Ding, Z.J. Zheng, **Feng Yan\***, H. K. Wu\*, M. W. Chen, and Y. Ikuhara, [ACS Nano, 7, 6310-6320 \(2013\)](#).
109. *Organic semiconductors in organic thin-film transistor-based chemical and biological sensors*, Caizhi Liao, **Feng Yan\***, [Polymer Reviews, 53, 352-406 \(2013\)](#), (invited review).
110. *Fabrication of Organic Electrochemical Transistor Arrays for Biosensing*, Zhang Meng, Peng Lin, Mo Yang and **Feng Yan\***, [Biochimica et Biophysica Acta \(BBA\) - General Subjects, 1830, 4402-4406 \(2013\)](#).
111. *Highly selective and sensitive glucose sensors based on organic electrochemical transistors with graphene-modified gate electrodes*, Caizhi Liao, Meng Zhang, Liyong Niu, Zijian Zheng and **Feng Yan\***, [J. Mater. Chem. B, 1, 3820-3829 \(2013\)](#).
112. *Oligothiophene-bridged bis(arylene ethynylene) small molecules for solution-processible organic solar cells with high open-circuit voltage*, Q.

- Liu, H.M. Zhan, C. L. Ho\*, F. R. Dai, Y. Y. Fu, Z. Y. Xie\*, L. X. Wang, J. H. Li, **F. Yan\***, S. P. Huang, W. Y. Wong\*, [Chem. Asian J.](#) **8**, 1892-1900 (2013).
113. *Hybrid solar cells based on poly(3-hexylthiophene) and electrospun TiO<sub>2</sub> nanofibers modified with CdS nanoparticles*, Shingchung Lo, Zhike Liu, Jinhua Li, Helen Laiwa Chan, **Feng Yan\***, [Progress in Natural Science: Materials International](#) **23**, 514-518 (2013).

## 2012

114. *Solution-gated graphene field effect transistors integrated in microfluidic systems and used for flow velocity detection*, Rong Xiang He, Peng Lin, Zhi Ke Liu, Hong Wei Zhu, Xing Zhong Zhao, Helen L. W. Chan, and **Feng Yan\***, [Nano Lett.](#) **12**, 1404-1409 (2012).
115. *Organic thin film transistors for chemical and biological sensing*, Peng Lin and Feng Yan\*, [Adv. Mater.](#) **24**, 34-51 (2012) (review article).
116. *Solution processible low-voltage polymer thin film transistors with high-k relaxor ferroelectric polymer as gate insulator*, Jinhua Li, Zhenhua Sun and **Feng Yan\***, [Adv. Mater.](#) **24**, 88-93 (2012).
117. *Ultrasensitive infrared photodetectors based on CVD-grown graphene and PbS quantum dots*, Zhenhua Sun, Zhike Liu, Jinhua Li, Guoan Tai, Shu-Ping Lau and **Feng Yan\***, [Adv. Mater.](#) **24**, 5878-5883(2012).
118. *The application of highly doped single-layer graphene as the top electrodes of semitransparent organic solar cells*, Zhike Liu, Jinhua Li, Zhenhua Sun, Guoan Tai, Shu Ping Lau and **Feng Yan\***, [ACS Nano](#) **6**, 810-818 (2012).
119. *Platinum(II)-Bis(aryleneethynylene) Complexes for Solution-Processible Molecular Bulk Heterojunction Solar Cells*, Feng-Rong Dai, Hong-Mei Zhan, Qian Liu, Ying-Ying Fu, Jin-Hua Li, Qi-Wei Wang, Zhiyuan Xie\*, Lixiang Wang, **Feng Yan\*** and Wai-Yeung Wong\*, [Chem. Eur. J.](#) **18**, 1502-1511 (2012).
120. *Nonlithographic Fabrication of Crystalline Silicon Nanodots on Graphene*, G.A. Tai, K. Wang, Z.H. Sun, J. Yin, S.M. Ng, J.X. Zhou, **F. Yan**, C.W. Leung, K.H. Wong, W. L. Guo and S.P. Lau\*, [J. Phys. Chem. C](#) **116**, 532-537 (2012).
121. *The influence of gate dielectrics on a high-mobility n-type conjugated polymer in organic thin-film transistors*, Jinhua Li, Jun Du, Jianbin Xu, Helen L. W. Chan, and **Feng Yan\*** [Appl. Phys. Lett.](#) **100**, 033301 (2012).
122. *The application of bismuth-based oxides in organic-inorganic hybrid photovoltaic devices*, Zhike Liu and **Feng Yan\***, [J. Am. Ceram. Soc.](#) **95**, 1944-1948(2012). (Highlight: Chinese Science Bulletin)
123. *Dithiafulvenyl unit as a new donor for high-efficiency dye-sensitized solar cells: synthesis and demonstration of a family of metal-free organic sensitizers*, Kunpeng Guo, Keyou Yan, Xiaoqing Lu, Yongcai Qiu, Zhike

- Liu, Jianwei Sun, **Feng Yan**, Wenyue Guo, and Shihe Yang\*, [Org. Lett.](#) [14, 2214-2217 \(2012\)](#).
124. *n- and p-Type modulation of ZnO nanomesh coated graphene field effect transistors*, Yeung Yu Hui, Guo'an Tai, Zhenhua Sun, Zihan Xu, Ning Wang, Feng Yan and Shu Ping Lau\*, [Nanoscale 4, 3118-3122 \(2012\)](#).
125. *Enhanced Performance of Hybrid Solar Cells Based on Ordered Electrospun ZnO Nanofibers Modified with CdS on the Surface*, Sujuan Wu, Jinhua Li, Shing-Chung Lo, Qidong Tai and **Feng Yan**\*, [Org. Electron.13, 1569-1575\(2012\)](#).
126. *The application of a high-k polymer in flexible low-voltage organic thin-film transistors*, Jinhua Li, Danqing Liu, Qian Miao and **Feng Yan**\*, [J. Mater. Chem. 22, 15998 – 16004 \(2012\)](#).
127. *Highly sensitive organic near-infrared phototransistors based on poly(3-hexylthiophene) and PbS quantum dots*, Zhenhua Sun, Jinhua Li and **Feng Yan**\*, [J. Mater. Chem. 22, 21673-21678 \(2012\)](#).
128. *Detection of Bacteria with Organic Electrochemical Transistors*, Rong-Xiang He, Meng Zhang, Fei Tan, P. H. M. Leung, Xing-Zhong Zhao, Helen. L. W. Chan, Mo Yang\*, and **Feng Yan**\*, [J. Mater. Chem. 22, 22072-22076 \(2012\)](#).
129. *A structural stability diagram of multiple vacancies and defect self-healing in graphene*, Lu Wang, **Feng Yan**\*, Helen L. W. Chan and Feng Ding\*, [Nanoscale 4, 7489-7493 \(2012\)](#)

## 2011

130. *Organic electrochemical transistors integrated in flexible microfluidic systems and used for label-free DNA sensing*, Peng Lin, Xiaoteng Luo, I-Ming Hsing and **Feng Yan**\*, [Adv. Mater. 23, 4035-4040 \(2011\)](#).
131. *Enhancement of Hole Mobility of Poly(3-hexylthiophene) Induced by Titania Nanorods in Composite Films*, Zhenhua Sun, Jinhua Li, Chenming Liu, Shihe Yang and **Feng Yan**\*, [Adv. Mater. 23, 3648-3652 \(2011\)](#).
132. *Highly sensitive glucose biosensors based on organic electrochemical transistors using platinum gate electrodes modified with enzyme and nanomaterials*, Hao Tang, **Feng Yan**\*, Peng Lin, Jianbin Xu and Helen L.W. Chan, [Adv. Funct. Mater. 21, 2264-2272 \(2011\)](#).
133. *Highly sensitive dopamine biosensors based on organic electrochemical transistors*, Hao Tang, Peng Lin, Helen L. W. Chan and **Feng Yan**\*, [Biosens. Bioelectron. 26, 4559-4563 \(2011\)](#).
134. *Enhanced photovoltaic performance of polymer solar cells by adding fullerene end-capped polyethylene glycol*, Qidong Tai, Jinhua Li, Zhike Liu, Zhenghua Sun, Xingzhong Zhao, and **Feng Yan**\*, [J. Mater. Chem. 21, 6848-6853, \(2011\)](#).
135. *Highly biocompatible multi-walled carbon nanotube–chitosan nanoparticles hybrids as protein carriers*, Cuiyun Li, Keqin Yang,

- Yingying Zhang, Hao Tang, **Feng Yan**, Liang Tan, Qingji Xie, Shouzhuo Yao, *Acta Biomaterialia* 7, 3070-3077 (2011).
136. *A Highly Sensitive Ultraviolet Sensor Based on a Facile *in situ* Solution-grown ZnO Nanorod/Graphene Heterostructure*, Haixin Chang, Zhenhua Sun, Keith Yat-Fung Ho, Xiaoming Tao, **Feng Yan\***, Wai-Ming Kwok\*, Zijian Zheng\*, [Nanoscale](#) 3, 258-264 (2011).
  137. *Thermal annealing and temperature dependences of memory effect in organic memory transistor*, C. Ren, S.M. Wang, C.W. Leung, **F. Yan** and P.K.L. Chan, [Appl. Phys. Lett.](#) 99, 043303 (2011).
  138. *Photovoltaic effect of BiFeO<sub>3</sub>/poly(3-hexylthiophene) heterojunction*, Zhike Liu and **Feng Yan\***, [Phys. Status Solidi RRL](#) 5, 367–369 (2011)
  139. *Study on magnetic and dielectric properties of YMnO<sub>3</sub> ceramics*, C. Zhang, J. Su, X. Wang, F. Huang, J. Zhang, Y. Liu, L. Zhang, K. Min, Z. Wang, X. M. Lu, **Feng Yan\***, J. S. Zhu. [J. Alloys Compd.](#) 509, 7738-7741 (2011).
  140. *Ferroelectric and dielectric properties of Bi<sub>3.15</sub>Nd<sub>0.85</sub>Ti<sub>3</sub>O<sub>12</sub> nanotubes*, Wei Cai, Xiaomei Lu, Huifeng Bo, Yi Kan, Yuyan Weng, Liang Zhang, Xiaobo Wu, Fengzhen Huang, Lukas M. Eng, Jinsong Zhu, and **Feng Yan\***, *J. Appl. Phys.* 110, 052004 1-5 (2011).
  141. *Efficient assembly of multi-walled carbon nanotube-CdSe/ZnS quantum dot hybrids with high biocompatibility and fluorescence property*, Yingying Zhang, Weiling Qin, Hao Tang, **Feng Yan**, Liang Tan, Qingji Xie, Ming Ma, Youyu Zhang, Shouzhuo Yao, *Colloids and Surfaces B: Biointerfaces* 87 346– 352 (2011).

## 2010

142. *Bandgap-tunable, solution-processed, few-layer reduced graphene oxide films and their thin film field-effect phototransistors*, Haixin Chang, Zhenhua Sun, Qinghong Yuan, Feng Ding, Xiaoming Tao, **Feng Yan\*** and Zijian Zheng\*, [Adv. Mater.](#) 22, 4872-4876 (2010).
143. *The application of organic electrochemical transistors in cell-based biosensors*, Peng Lin, **Feng Yan\***, Jinjiang Yu, Helen L. W. Chan, and Mo Yang, [Adv. Mater.](#) 22, 3655-3660 (2010).
144. *The improvement of glucose bioelectrocatalytic properties of platinum electrodes modified with electrospun TiO<sub>2</sub> nanofibers*, Hao Tang, **Feng Yan\***, Qidong Tai, and Helen L.W. Chan, [Biosens. Bioelectron.](#) 25, 1646-1651 (2010).
145. *Hybrid solar cells based on Poly(3-hexylthiophene) and electrospun TiO<sub>2</sub> nanofibers with effective interface modification*, Qidong Tai, Xingzhong Zhao, **Feng Yan\***, [J. Mater. Chem.](#) 20, 7366-7371 (2010).
146. *N-Type Organic Semiconductors Based on π-Deficient Pentacenequinones: Synthesis, Electronic Structures, Molecular Packing, and Thin Film Transistors*, Zhixiong Liang, Qin Tang, Jing Liu, Jinhua Li, **Feng Yan**, and Qian Miao, [Chem. Mater.](#) 22, 6438-6443 (2010).

147. *Hybrid photovoltaic devices based on poly (3-hexylthiophene) and ordered electrospun ZnO nanofibers.* Sujuan Wu, Qidong Tai and **Feng Yan\***, [J. Phys. Chem. C](#) **114**, 6197-6200 (2010).
148. *Investigation of high performance air-processed poly(3-hexylthiophene)/methanofullerene bulk-heterojunction solar cells,* Sujuan Wu, Jinhua Li, Qidong Tai and **Feng Yan\***, [J. Phys. Chem. C](#) **114**, 21873-21877 (2010).
149. *Application of thin film transistors in label-free DNA biosensors,* **Feng Yan\*** and Hao Tang, [Expert Rev. Mol. Diagn.](#)**10**, 547 (2010). (Invited Editorial)
150. *Phase diagram and electrostrictive properties of  $Bi_{0.5}Na_{0.5}TiO_3$ - $BaTiO_3$ - $K_{0.5}Na_{0.5}NbO_3$  ceramics,* Shan-Tao Zhang, **Feng Yan\***, Bin Yang, Wenwu Cao, [Appl. Phys. Lett.](#) **97**, 122901(2010).
151. *Ion sensitive properties of organic electrochemical transistors,* Peng Lin, **Feng Yan\*** and Helen L.W. Chan, [ACS Appl. Mater. Interfaces](#) **2**, 1637-1641(2010).
152. *Morphotropic phase boundary and electrical properties in  $(1-x)Bi_{0.5}Na_{0.5}TiO_3$ - $xBi(Zn_{0.5}Ti_{0.5})O_3$  lead-free piezoceramics,* Shan-Tao Zhang, **Feng Yan\***, Bin Yang, [J. Appl. Phys.](#) **107**, 114110 (2010).

## 2009

153. *Label-free DNA sensor based on organic thin film transistors,* **Feng Yan\***, Sheung Man Mok, Jinjiang Yu, Helen L.W. Chan, and Mo Yang, [Biosens. Bioelectron.](#) **24**, 1241-1245 (2009).
154. *Improvement of the Tunable Wettability Property of Poly(3-alkylthiophene) Films,* Peng Lin, **Feng Yan\*** and Helen L. W. Chan, [Langmuir](#) **25**, 7465 (2009).
155. *Study on dielectric and magnetodielectric properties of  $Lu_3Fe_5O_{12}$  ceramics,* Xiaobo Wu, Xiaofei Wang, Yunfei Liu, Wei Cai, Song Peng, Fengzhen Huang, Xiaomei Lu, **Feng Yan\***, and Jinsong Zhu\*, [Appl. Phys. Lett.](#) **95**, 182903 (2009).
156. *Magnetic control of polarization and ferroelastic strain switching in Terfenol-D/ $Bi_{12}GeO_{20}$  laminate,* Pan Yang, Song Peng, Xiaofei Wang, Xiaomei Lu, **Feng Yan\***, and Jinsong Zhu\*, [Appl. Phys. Lett.](#) **94**, 082904 (2009).
157. *Highly photosensitive thin film transistors based on a composite of poly(3-hexylthiophene) and titania nanoparticles,* **Feng Yan\***, J. H. Li and S. M. Mok, [J. Appl. Phys.](#) **106**, 074501 (2009).
158. *Magnetoelectric study in Terfenol-D/ $TB_2(MO_4)_3$  bilayer composit,* Song Peng , Pan Yang, Wei Cai, Xiaomei Lu, J. -M. Liu, **Feng Yan**, Min Xu, Huaijin Zhang, Jiyang Wang and Jinsong Zhu, [J. Appl. Phys.](#) **105**, 061622, 1-3(2009).
159. *Magnetoelectricity in laminate composites of Terfenol-D and  $0.52Pb(Fe_{1/2}Nb_{1/2})O_3$ - $0.48 PbTiO_3$  with different orientations,* P Yang, S

- Peng, X B Wu, J G Wan, X M Lu, Feng Yan and J S Zhu, J. Phys. D: Appl. Phys. 42, 015005 1-5 (2009).
160. *Mechanical spectrum study of glass transition by a composite method*, Y. H. Yuan, L. Zhang, X. L. Wang, X. N. Ying, Feng Yan, Y. N. Huang, J. S. Zhu, and Y. N. Wang, Phys. B, 404, 3771-3774 (2009).

## 2008

161. *Organic phototransistor based on poly(3-hexylthiophene)/TiO<sub>2</sub> nanoparticle composite*, Sheung Man Mok, Feng Yan\*, and Helen L. W. Chan, [Appl. Phys. Lett. 93, 023310 \(2008\)](#).
162. *Measurement of ultralow injection current to polymethyl-methacrylate film*, Feng Yan\*, Yi Hong, and Helen L. W. Chan, [Appl. Phys. Lett. 92, 243301 \(2008\)](#).
163. *Large Lamb wave band gap in phononic crystals thin plates*, J. J. Chen, Feng Yan, H. L. W. Chan, [Appl. Phys. B 90, 557–559 \(2008\)](#)

## 2007

164. *3-D simulation of twin boundary effect on characteristics of single-grain silicon thin film transistors*, Feng Yan\*, P. Migliorato and R. Ishihara, [Appl. Phys. Lett. 91, 073509 \(2007\)](#).
165. *Phase Transitions in Pb(Mg<sub>1/3</sub>Nb<sub>2/3</sub>)O<sub>3</sub>–PbTiO<sub>3</sub> Studied by Low-Frequency Internal Friction Measurement*, Feng Yan\*, Peng Bao, Jingsong Zhu, Yening Wang, Helen L. W. Chan, and Chung Loong Choy, [J. Am. Ceram. Soc. 90, 3167 \(2007\)](#).
166. *Temperature Dependent Characteristics of All Polymer Thin Film Transistors Based on poly(9,9-dioctylfluorene-co-bithiophene)*, Feng Yan\*, Yi Hong, Piero Migliorato, [J. Appl. Phys. 101, 064501 \(2007\)](#).
167. *Study on the crystallization by an electrical resistance measurement in Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> and N-doped Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> films*, D. Z. Hu, X. M. Lu, J. S. Zhu and Feng Yan, [J. Appl. Phys. 102, 113507, 1-4 \(2007\)](#).
168. *Injection-limited contact in bottom-contact pentacene organic thin-film transistors*, Yi Hong, Feng Yan, P. Migliorato, S. H. Han, J. Jang [Thin Solid Films 515, 4032-4035 \(2007\)](#).

## 2006 and before (Selected publications)

169. *Influence of trap states on dynamic properties of single grain silicon thin film transistors*, F. Yan, P. Migliorato, R. Ishihara, [Appl. Phys. Lett. 88, 153507\(2006\)](#).
170. *Coexistence of MA and MC phases in Pb(Mg<sub>1/3</sub>Nb<sub>2/3</sub>)<sub>0.68</sub>Ti<sub>0.32</sub>O<sub>3</sub> single crystals*, Peng Bao, Feng Yan, Xiaomei Lu, Jinsong Zhu, Huimin Shen and Yening Wang, [Appl. Phys. Lett. 88, 092905 \(2006\)](#).

171. *Gate oxide induced switch-on undershoot current observed in thin film transistors*, **F. Yan**, P. Migliorato, Y Hong, V. Rana, R. Ishihara, Y. Hiroshima, D. Abe, S. Inoue, T. Shimoda. Appl. Phys. Lett. 86, 253504 (2005).
172. *Polycrystalline Silicon Ion Sensitive Field Effect Transistors*, **F. Yan**, P. Estrela, Y. Mo, P. Migliorato, H. Maeda, S. Inoue and T. Shimoda. Appl. Phys. Lett. 86, 053901 (2005).
173. *Field Effect Detection of Biomolecular Interactions*, P. Estrela, A. G. Stewart, **F. Yan**, P. Migliorato. Electrochimica Acta 50, 4995 (2005).
174. *Dielectric Relaxation in 91%Pb(Zn<sub>1/3</sub>Nb<sub>2/3</sub>)O<sub>3</sub>-9%PbTiO<sub>3</sub> Single Crystal at Low Temperature*, Peng Bao, **Feng Yan**, Yurong Dai, Jingsong Zhu, and Yening Wang, Appl. Phys. Lett. 84, 5317 (2004).
175. *Investigation of Trap Processes in Polysilicon TFTs by AC Measurements*, **Feng Yan**, Piero Migliorato, Tatsuya Shimoda, Appl. Phys.Lett 82, 2062 (2003).
176. *Ferroelectric Properties of (Ba<sub>0.5</sub>Sr<sub>0.5</sub>)TiO<sub>3</sub>/Pb(Zr<sub>0.52</sub>Ti<sub>0.48</sub>)O<sub>3</sub>/(Ba<sub>0.5</sub>Sr<sub>0.5</sub>)TiO<sub>3</sub> Thin Films with Platinum Electrodes*, **Feng Yan**, Yening Wang, Helen L. W. Chan, and Chung Loong Choy. Appl. Phys. Lett. 82, 4325(2003).
177. *Phase transition in relaxor ferroelectrics studied by mechanical measurements*, **Feng Yan**, Peng Bao, Yening Wang, Appl. Phys. Lett. 83, 4384(2003).
178. *Mechanical properties related to the relaxor-feroeelctric phase transition of titanium-doped lead magnesium niobate*. P. Bao, **F. Yan**, W. Li, Y. R. Dai, H. M. Shen, J. S. Zhu, Y.N. Wang, Helen L.W. Chan, and Chung-Loong Choy, Appl. Phys. Lett. 81, 2059 (2002).
179. *Cooling Rate Dependent Dielectric Properties of (Pb(Mg<sub>1/3</sub>Nb<sub>2/3</sub>)O<sub>3</sub>)<sub>0.67</sub> (PbTiO<sub>3</sub>)<sub>0.33</sub> Single Crystals in Ferroelectric Phase*, **Feng Yan**, Peng Bao, Yening Wang, Helen L. W. Chan, and Chung Loong Choy. Appl. Phys. Lett. 81, 4580(2002).
180. *Internal Friction and Young's Modulus of SrBi<sub>2</sub>Ta<sub>2</sub>O<sub>9</sub> ceramics*. **Feng Yan**, Xiaobin Chen, Peng Bao and Yening Wang. J. Appl. Phys. 87, 1453 (2000).
181. *Switching Properties of SrBi<sub>2</sub>Ta<sub>2</sub>O<sub>9</sub> Thin Films Produced by Metalorganic Decomposition*. X.B. Chen, **F. Yan**, C.H. Li, Z.G. Zhang, J.S. Zhu, and Y.N. Wang, Appl. Phys. Lett. 76, 369.(2000).
182. *Mechanical Relaxation in SrBi<sub>2</sub>Ta<sub>2</sub>O<sub>9</sub> ceramics*, **Feng Yan**, Yening Wang, Jianshe Liu, Xiaobing Chen and Zhigang Zhang. Appl. Phys. Lett. 74, 2794 (1999).
183. *The dielectric properties of polycrystalline C<sub>60</sub>*, **Feng Yan** and Ye-Ning Wang, Appl. Phys. Lett. 72, 3446, (1998).
184. *Phase transition of C<sub>60</sub> Crystal in high temperature range*, **Feng Yan** and Ye-Ning Wang, Appl. Phys. Lett. 73,476, (1998).

185. *Grain-size effect on elastic properties of C<sub>60</sub> films and their relationship to the order-disorder phase transition*, F. Yan, Y. N. Wang and M. Gu, Phys. Rev. B 55 (rapid communication) R4918 (1997)