Xiong Gong, Ph. D.
Professor of Polymer Engineering
Department of Polymer Engineering, College of Polymer Science and Polymer Engineering
The University of Akron, Akron, OH 44325-0301
Tel: (330) 972-4983; Fax: (330) 972-3406
E-mail: xgong@uakron.edu, Homepage: http://ohme.uakron.edu
Google Scholar: https://scholar.google.com/citations?user=XG6dlLAAAAAJ&hl=en

Editorial Board Member, Scientific Reports (published by Nature)
Associate Editor, Emergent Materials (published by Elsevier)
Editorial Board Member, Chinese Chemistry Letter (published by Springer)
Editorial Board Member, Polymers (published by MDPI)

HILIGHT ACCOMPLISHMENTS

- Scientific Contributions
  - 189 articles published in the peer reviewed journals including in Science, with over 20257 peers citations and H-index = 57, as Aug.16, 2018.
  - 28 granted patents plus few pending patents.
  - 1 book and 8 book chapters.
  - 152 invited talks in conferences and academic institutions.
- Research Grants at The University of Akron (UA) since 2011
  - Funding: >$5 M
- Teaching at UA
  - Development and taught three new courses for graduate students
  - Taught one course for undergraduate students in Mechanical Department
  - Teaching evaluation rates rank one of top list in the college for last 6 years

AWARDS AND HONORS

- 2017-2018 Outstanding Researcher Award, The University of Akron
- Top 1 % Highly Cited Researcher by Thomson Reuters (2016)
- Top 1 % Highly Cited Researcher by Thomson Reuters (2015)
- The World's Most Influential Scientific Minds 2014 (2015)
- Top 1 % Highly Cited Researcher by Thomson Reuters (2014)
- NSF CAREER award (2014)
- 3M Non-tenured Faculty Award (2011)
- The University of Akron, Summer Research Award (2011)
- Overseas Outstanding Chinese Young Scientist Awards, NSF of China (2008)
- K. C. Wong Education Foundation Fellow (2009)
- Alexander von Humboldt Research Fellowship (1999)

EMPLOYMENT

- August 2010 – present **Assistant, Associate and Full Professor**
  Department of Polymer Engineering, College of Polymer Science and Polymer Engineering, University of Akron, Akron, OH, USA
- January 2005 - August 2010 **Senior Research Scientist**

Center for Polymers and Organic Solids, University of California, Santa Barbara, CA, USA

- January 2005 - August 2010 **Manager and Senior Scientist,** CBrite, Inc. Goleta, CA, USA

EDUCATION AND PROFESSIONAL TRAINING

- **B. Sc.** in Chemistry, Northwest Normal University, P. R. China, 1986
  Project: Ru-coordination compounds and its medical applications
  Supervisor: Prof. Yuchen Pan
- **M. Sc.** in Chemistry (Solid State Chemistry), Lanzhou University, P. R. China, 1994
  Dissertation: The effect of γ-ray irradiation on catalytic properties of rare-earth doped inorganic nanostructured materials
  Advisors: Prof. Zhongqian Ma and Prof. Hongxie Yang
- **Ph. D.** in Physics (Optics), Nankai University, P. R. China, 1997
  Dissertation: Optical (linear and nonlinear) properties of rare-earth doped inorganic nanoparticles
  Advisors: Prof. Wenju Chen
- **Alexander von Humboldt Research Fellow** June 1999 - January 2000
  Carl-Zeis Optical Institute, Jena, Germany
- **Post-doctoral Fellow and Research Assistant** April 2001- December 2003
  Center for Polymers and Organic Solids, University of California, Santa Barbara (UCSB)
  with Professor Alan J. Heeger (2000 Noble Laureate)
  Minor (graduate courses) in Electric Engineering, UCSB

RESEARCH INTERESTS AND EXPERTISE

- Organic/polymer electronics and optoelectronics,
- Perovskite hybrid materials and electronics,
- Organic thermoelectric materials and devices,
- Graphene based supercapacitors
- Self-powered electronics,
- Chemistry and physics of semiconducting organic/polymer materials
- Chemistry and physics of inorganic quantum dots and nanoparticles
- Optical spectroscopy

GRANTS

1 Current grants

- Air Force Scientific Research
  Title: Uncooled broadband solution-processed photodetectors
  Total Award Amount: $819,543
  Role: PI
  Period: Sept. 2015 – Aug. 2019
- NSF
  Title: Ultrasensitive solution-process inverted polymer photodetectors
  Award Amount: $408,000
  Role: PI

Period: July 2014 - June 2019

- 1-Material Inc.
  Title: “Novel Polymers: Characterization and Applications”
  Award Amount: $250,000
  Time period: July 2012 - Aug. 2018
  Role: PI
- Air Force Scientific Research
  Title: Trust in Flexible and Hybrid Electronics
  Total Award Amount: $1.78M
  Role: Co-PI (PI: Dean Dr. Eric Amis, with another 4 Co-PIs)
  Period: Sept. 2017 – Aug. 2019

2. Pending proposals

- Title: Integration of organic solar cells with perovskite solar cells for approaching over 30% power conversion efficiency
  Source: NSF
  Role: PI
  Total Award Amount: $379,050
  Total Award Covered: 07/01/2018-07/31/2020
- Title: DURIP- Instruments
  Source: Air Force Scientific Program
  Role: PI
  Total Award Amount: $386,760
  Total Award Covered: 07/01/2018-07/31/2020
- Title: DURIP- Instruments
  Source: Air Force Scientific Program
  Role: PI
  Total Award Amount: $386,760
  Total Award Covered: 07/01/2018-07/31/2020
- Title: Two-dimensional Polyhedral Orgomeric Silsesquioxanes-Conjugated Polymers
  Source: ACS PRF
  Role: PI
  Total Award Amount: $110,000
  Total Award Covered: 07/01/2018-07/31/2019
- Title: Over 30% efficiency from polymer solar cells integrated with perovskite hybrid solar cells
  Source: ENI
  Role: PI
  Total Award Amount: $200,000
  Total Award Covered: 07/01/2018-07/31/2020
- Title: Utilizing Photovoltaic Conjugated Polymers for Diffusionless Photocapacitive Deionization of Salt Water
  Source: NSF
  Role: Co-PI
  Total Award Amount: $345,020

Total Award Covered: 07/01/2018-07/31/2020

- Title: Efficient Bulk Heterojunction Perovskite Hybrid Solar Cells via Novel Perovskite Hybrid Materials

  Source: NSF

  Role: PI

  Total Award Amount: $386,363

  Total Award Covered: 05/01/2016-04/31/2018

- Title: Physics, Chemistry and Mechanics of Polymer Dielectric Breakdown

  Source: ONR

  Role: PI

  Total Award Amount: $999,728

  Total Award Covered: 06/01/2017-05/31/2020

- Title: **Ohio Soft Matter MRSEC**

  Source: NSF

  Role: Co- PI

  Total Award Amount: $5,340,965

  Total Award Covered: 06/01/2017-05/31/2021

- Title: Uncooled Ultrasensitive Solution-Processed Broad-Band Photodetectors by Novel Perovskite Hybrid Materials and PbSe Quantum Dots as the Light Sensitizer

  Source: NSF

  Role: PI

  Total Award Amount: $429,910

  Total Award Covered: 07/01/2016-05/31/2018

3. Past grants

- Mitsubishi Chemical Corporation

  Title: High performance electrophosphorescenct polymer light-emitting diodes

  Award Amount: $1,500,000

  Time period: Aug. 2001 - Aug. 2006

  Role: Project Assistant (PI: Prof. A. J. Heeger)

- DARPA

  Title: Hemispherical Array Detector for Imaging

  Award Amount: $22,500,000

  Time period: July 2007 - Aug. 2010

  Role: Project manager (PI: Prof. A. J. Heeger)

- The University of Akron

  Title: Organic electronics

  Award amount: $500,000

  Time period: Aug. 2010 - July 2014

  Role: PI

- The University of Akron

  Title: POSS-Polymer for flexible electronics

Award Amount: $10,000
Time period: July 2012 - Aug. 2012
Role: PI

- DOE
  Title: In-situ Neutron Scattering Determination of 3D Phase-Morphology Correlations in Fullerene-Block Copolymer Systems Block Copolymer System
  Award Amount: $831,066
  Time period: Sept. 2012 – Aug. 2014
  Role: Co-PI
- 3M Company
  Title: Polymer electronics
  Award Amount: $45,000
  Time period: July 2011 - June 2014
  Role: PI
- BringSpring Science and Technology
  Title: “High Performance Inverted Polymer Solar Cells”
  Award Amount: $600,000
  Time period: March 2013 - March 2016
  Role: PI
- System Seals Inc.
  Title: Polymer processing
  Award Amount: $11,658
  Time period: Feb. 2013 - Sept. 2013
  Role: PI
- Bayer MaterialScience
  Title: “Special Bayer Lectureship” 2013
  Award Amount: $8,000
  Role: Initiated
- Aldrich Material Science
  Title “Special Aldrich Lectureship” 2014
  Award Amount: $3,500
  Role: Initiated

PUBLICATIONS

1. J. Qi, X. Yao, W. Z. Xu, J. Xiao, X. F. Jiang, **X. Gong**,* Y. Cao
   Efficient Perovskite Solar Cells with Reduced Photocurrent Hysteresis through Tuned Crystallinity of Hybrid Perovskite Thin Films
   ACS Omega, 2018, 3, 7069-7076.

2. H. C. He, X. Xuan, C. Y. Zhang, Y. Song, S. F. Chen, X. **Gong,** B. P. Ren, J. Zheng, J. Zheng
   Simple Thermal Pretreatment Strategy to Tune Mechanical and Antifouling Properties of Zwitterionic Hydrogels
   Langmuir, 2018, DOI:10.1021/acs.langmuir.8b01755

3. H. Peng, Z. Y. Chen, C. D. Wei, T. Y. Meng, L. Liu, Z. Q. Lei and **X. Gong***
   All-solid-state flexible asymmetric supercapacitors fabricated by the binder-free hydrophilic carbon cloth@MnO_2 and hydrophilic carbon cloth@polypyrrole electrodes
   ACS Applied Energy Materials, 2018, accepted.
4. L. Y. Zheng, T. Zhu, W. Z. Xu, J. Zheng, L. Liu, and **X. Gong***
   Ultrasensitive perovskite photodetectors by Co partially substituted hybrid perovskite
   ACS Sustainable Chemistry & Engineering, DOI: 10.1021/acssuschemeng.8b02363.
5. T. Y. Meng, C. Yi, L. Liu, A. Karim and **X. Gong***
   Enhanced thermoelectric properties of two-dimensional conjugated polymers,
   Emergent Materials, 2018, **DOI :** 10.1007/s42247-018-0002-4
6. B. P. Ren, Y. L. Liu, Y. X. Zhang, Y. Q. **X. Gong**, J. Zheng,
   Genistein: A Dual Inhibitor of Both Amyloid β and Human Islet Amylin Peptides
   ACS Chemical Neuroscience, 2018, 9,1215-1224.
7. L. Y. Zheng, T. Zhu, W. Z. Xu, L. Liu, J. Zheng, **X. Gong**,* F. Wudl
   Solution-processed broadband polymer photodetectors with spectral response up to 2.5 μm by a low bandgap donor-acceptor conjugated polymer
   J. Mater. Chem. C., 2018, 6, 3634-3641.
8. X. Yao, J. Qi, W. Z. Xu, X. F. Jiang, **X. Gong**,* Y. Cao
   Cesium-doped vanadium oxide as the hole extraction layer for efficient perovskite solar cells
   ACS Omega, 2018, 3(1), 1117-1125.
9. W. Z. Xu, L. Y. Zheng, X. T. Zhang, C. Yi, W. P. Hu, **X. Gong***
   Efficient perovskite solar cells fabricated by Co partially substituted hybrid perovskite, Adv. Eng. Mater., 2018, DOI:10.1002/aenm.201703178.
10. W. Z. Xu, Y. K. Guo, X. T. Zhang, L. Y. Zheng, T. Zhu, D. H. Zhao, W. P. Hu, **X. Gong***
    Room-temperature operated ultrasensitive broadband photodetectors by perovskite incorporated with conjugated polymer and single wall carbon nanotubes,
    Adv. Func. Mater., 2017, DOI:10.1002/adfm.201705541.
11. L. Y. Zheng, S. Mukherjee, K. Wang, M. E Hay, B. W, Boudouris and **X. Gong***
    Radical polymers as interfacial layers in inverted hybrid perovskite solar cells
    J. Mate. Chem. A, 2017, 5, 23831-23839.
12. Ma, J.; Sun, Y. R.; Zhang, M. Z.; Yang, M. X.; **Gong, X**.; Yu, F.; Zheng, J.,
    Comparative Study of Graphene Hydrogels and Aerogels Reveals the Important Role of Buried Water in Pollutant Adsorpti,
    Environmental Science & Technology, 2017, 51(21), 12283-12292.
13. X. Yao, W. Z. Xu, X. J. Huang, J. Qi, Q. W. Yin, X. F. Jiang, F. Huang, **X. Gong**,* and Y. Cao
    Solution-processed vanadium oxide thin film as the hole extraction layer for efficient hysteresis-free perovskite hybrid solar cells

Organic Electronics, 2017, 47, 85-93.

14. R. D. Hu, B. P. Ren, H. Chen, Y. L. Liu, L. Y. Liu, **X. Gong,** J. Zheng
    Seed-induced heterogeneous cross-seeding self-assembly of human and rat islet polypeptides
    ACS Omega, 2017, 2, 784-792.
15. H. Peng, C. D. Wei, K. Wang, T. Y. Meng, G. F. Ma, Z. Q. Lei, **X. Gong**,*
    The $Ni_{0.85}Se@MoSe_2$ nanosheet arrays as the electrode for high-performance supercapacitors
    ACS Appl. Mater. & Interfac., 2017, 9, 17067-17075.
16. W. Z. Xu, C. Yi, X. Yao, L. L. Jiang, **X. Gong**,* and Yong Cao
    Efficient organic solar cells with polymer-small molecule: fullerene ternary active layers
    ACS Omega, 2017, 2, 1786-1794.
17. X. Z. Xu, X. Yao, X. J. Huang, Fei Huang, **X. Gong***
    Perovskite hybrid solar cells with fullerene derivative electron extraction layer
    J. Mater. Chem. C, 2017, 5, 4190-4197.
18. X. J. Huang, W. Z. Xu, X. Yao, F. Huang, **X. Gong*** and Y. Cao
    Inverted polymer solar cells with Zn_2SnO_4 nanoparticles as the electron extraction layer
    Chinese Chemistry Letter, 2017, 28, 1755-1759.
19. W. Z. Xu, H. Peng, T. Zhu, C. Yi, L. Liu, **X. Gong***
    Solution-processed near-infrared polymer:PbS QDs photodetectors
    RSC Advances, 2017, 7, 34633-34637.
20. Y. Sun, P. Pitliya, C. Liu , **X. Gong**, D. Raghavan, A. Karim
    Block copolymer compatibilized polymer: fullerene blend morphology and properties
    Polymer, 2017, 113, 1-12.
21. W. Wang, Z. Zhang, C. Liu, Q. Fu, W.Z. Xu, C. W. Huang, R. A. Weiss, **X. Gong***
    Efficient Polymer Solar Cells by Lithium Sulfonated Polystyrene as a Charge Transport Interfacial Layer
    ACS Applied Materials & Interfaces, **2017**, 9, 5348-5357.
22. Ji, T.; Cao, W.; Chen, L.; Mu, L. W.; Wang, H. Y.; **Gong, X**.; Lu, X. H.; Zhu, J. H.,
    Confined molecular motion across liquid/liquid interfaces in a triphasic reaction towards free-standing conductive polymer tube arrays, J
    J. Mater. Chem. A., 2016, 4(17), 6290-6294.
23. C. Liu, H. Peng, K. Wang, C. D. Wei, Z. X. Wang, **X. Gong***
    PbS Quantum Dots-Induced Trap-Assisted Charge Injection in Perovskite Photodetectors,
    Nano Energy, **2016**, 30, 27-35.
24. C. Yi, L. Zhang, R. D. Hu, S. C. Chuang, J. Zheng, **X. Gong***
    Highly electrically conductive polyethylenedioxythiophene thin films for thermoelectric applications

J. Mater. Chem. A., **2016**, 4, 12730-12738.

25. H. Chen, F. Y. Yang, M. Z. Zhang, B. P. Ren, **X. Gong**, J. Ma, B. B. Jiang, Q. Chen, J. Zheng, R. D. Hu.
    A Comparative Study of Mechanical Properties of Hybrid Double-Network Hydrogels at Swelling and As-Prepared States
    J. Mater. Chem. B., **2016**, 4(35), 5814-5824.
26. Y. P. Huang, W.Z. Xu, C. Zhou, Cheng; W. K. Zhong, R. B. Xie, **X. Gong**, L. Ying, F. Huang, Y. Cao
    Synthesis of medium-bandgap π-Conjugated polymers based on isomers of 5-Alkylphenanthridin-6(5H)-one and 6-Alkoxylphenanthridine
    J. Polymer Science, Part A: Polymer Chemistry，**2016**，54, 2119-2127.
27. Long Chen, Liwen Mu, Kai Wang, **X. Gong**, J. H. Zhu
    Confined molecular motion across liquid/liquid interfaces in a triphasic reaction towards free-standing conductive polymer tube array
    J. Material Chemistry A., **2016**, 4, 6290-6294.
28. Kai Wang, Chang Liu, Tianyu Meng, Chao Yi, **Xiong Gong***
    Inverted Organic Photovoltaic Cells
    Chem. Soc. Rew., **2016**, 45, 2937-2975.
29. Nabankur Deb, Bohao Li, Maximilian Skoda, Sarah Rogers, Yan Sun, **Xiong Gong**, Alamgir Karim, Bobby Sumpter and David G Bucknall
    Harnessing Structure-Property Relationships for Poly(alkyl thiophene)-Fullerene Derivative Thin Films to Optimize Performance in Photovoltaic Devices
    Adv. Func. Mater., **2016**, 26, 1908-1920.
30. Wenzhan Xu, Yongtao Liu; Xiaojuan Huang, Lili Jiang, Qingduan Li; Xiaowen Hu, Fei Huang, **Xiong Gong,*** Yong Cao
    Solution-processed VO_X prepared from a novel synthetic method as the hole extraction layer for polymer solar cells
    J. Mater. Chem. C, **2016**, 4, 1953-1958.
31. Chang Liu, Kai Wang, Chao Yi, Xiaojun Shi, Adam W. Smith, **Xiong Gong*** and Alan J. Heeger
    Efficient Perovskite Hybrid Photovoltaics via Alcohol-Vapor Annealing Treatment
    Adv. Func. Mater., **2016,** 26(1), 101-110.
32. Tianyu Meng, Chang Liu, Kai Wang, Tianda He, Yu Zhu, Abdullah Al-Enizi, Ahmen Elzatahry, **Xiong Gong***
    High Performance Perovskite Hybrid Solar Cells with E-beam-Processed TiOx Electron Extraction Layer
    ACS Applied Materials & Interfaces, **2016**, 8(3), 1876-1883.
33. Xu Huang, Kai Wang, Chao Yi, Tianyu Meng and **Xiong Gong***

Efficient Perovskite Hybrid Solar Cells by Highly Electrical Conductive PEDOT:PSS Hole Transport Layer
Adv. Eng. Mater., **2016**, DOI:10.1002/aenm.201501773.

34. Chao Yi, Xiaowen Hu, **Xiong Gong***
Interfacial Engineering for High Performance Organic Photovoltaics
Materials Today, **2016**, 19, 169-177.
35. Chang Liu, Kai Wang, **Xiong Gong*** and Alan J. Heeger
Low Bandgap Polymers for Polymeric Photovoltaics
Chem. Soc. Rev., **2016**, 45, 4825-4846.
36. Peng, Liu, Sheng Dong, Feng Liu, Xiaowen Hu, Yaocheng Jin; Shengjian Liu; **Xiong Gong**, Thomas Russell, Fei Huang, Yong Cao
Optimizing Light-Harvesting Polymers via Side Chain Engineering
Advanced Functional Materials, **2015**, 25(41), 6458-6469.
37. Kai Wang, Chang Liu Chao Yi, Long Chen, Jiahua Zhu, Robert Weiss and **Xiong Gong***
Efficient Perovskite Hybrid Solar Cells via Ionomer Interfacial Engineering
Adv. Func. Mater., **2015**, 25(44), 6875-6884.
38. P. C. Du, H. Liu, C. Yi, K. Wang, **X. Gong***
Polyaniline Modified Oriented Graphene Hydrogel Film as the Free-Standing Electrode for Flexible Solid-state Supercapacitors
ACS Applied Materials & Interfaces, **2015**, *7* (43), 23932–23940.
39. S. X. Sun, Y. Huo, M. M. Li, X. W. Hu, Y. W. Zhang, X. L. **X. Gong**, H. L. Zhang
Towards Understanding the Halogenation Effects in Diketopyrrolopyrrole-Based Small Molecule Photovoltaics
ACS Applied Materials & Interfaces, **2015**,7(36), 19914-19922.
40. M. Z. Zhang, R. D. Hu, H. Chen, **X. Gong**, F. M. Zhang J. Zheng
Polymorphic Associations and Structures of the Cross-Seeding of Aβ1-42 and hIAPP1-37 Polypeptides
J. Chem. Inform. Model., **2015**, 55(8), 1628-1639.
41. Chang Liu, Kai Wang, Pengcheng Du, Enming Wang and **Xiong Gong***
Ultrasensitive Solution-Processed Near-Infrared Photodetectors using $CH_3NH_3PbI_3$ and PbS Quantum Dots as the Light Harvesters
Nanoscale, **2015**, **7**, 16460 - 16469.
42. Xiaowen Hu, Pengcheng Du, Kai Wang, Chao Yi, Chang Liu, **Xiong Gong*** and Yong Cao
Process Controllable Crystallization Morphology of Planar Heterojunction Perovskite Solar Cells with High Efficiency
J Photovoltaics, **2015**, 5, 1402-1407.
43. Chang Liu, Kai Wang, Pengcheng Du, Chao Yi, Tianyu Meng, **Xiong Gong***
Efficient Solution-Processed Bulk Heterojunction Perovskite Solar Cells

Adv. Energy Mater. **2015**, DOI:10.1002/aenm.201402024.

44. Kai Wang, Chang Liu, Pengcheng Du, Hao-Li Zhang, and **Xiong Gong***
    Efficient Perovskite Hybrid Solar Cells through Homogeneous High-Quality Organolead Iodide Layer
    Small, **2015**, 11, 3369-3376.
45. Qingduan Li, Feng Liu, Xiaowen Hu, Wenzhan Xu, Liping Wang, Xuhui Zhu, **Xiong Gong*,** and Yong Cao
    Efficient Small-Molecule-Based Inverted Organic Solar Cells With Conjugated Polyelectrolyte as a Cathode Interlayer
    J. Photovoltaics, **2015**, 5, 1118-1124.
46. Chang Liu, Kai Wang, Pengcheng Du, Chao Yi, Tianyu Meng, **Xiong Gong***
    Solution-Processed Inverted Perovskite Hybrid Photodetectors
    J. Mater. Chem. C. **2015**, 3, 6600-6606. (The Journal Front Cover)
47. Ke Liu, Chengli Song, Lu-Ya Gup, Cheng Zhang, Yu Liu, **Xiong Gong**, Hao-LI Zhang
    Tuning the ambipolar charge transport properties of N-heteropentacenes by their frontier molecular orbital energy levels
    Journal of Materials Chemistry C, **2015**, 3(16), 4188-4196
48. Pengcheng Du, Xiaowen Hu, Chao Yi, Huckleberry C. Liu, Peng Liu, Hao-Li Zhang, and **Xiong Gong***
    Self-powered electronics by integration of flexible solid-state graphene-based supercapacitors with high performance perovskite solar cells
    Advanced Functional Materials, **2015**, 25, 2420-2427.
49. Chao Yi, Abigail Wilhite, Pengcheng Du, Hucklee Chang Liu, Rundong Hu, Yiwen Chen, Jie Zheng, **Xiong Gong***
    High performance organic thermoelectric materials with tunable film morphology
    ACS Applied Materials & Interfaces, **2015**, 7, 8984-8989.
50. Wenzhan Xu, Xiaowen Hu, Fei Huang, **Xiong Gong***, Y. Cao
    Efficient inverted polymer solar cells by bi–electron-extraction layer
    J. Photovoltaics, **2015**, 5, 912-916.
51. Kai Wang, Chao Yi, Chang Liu, Chih-Hao Hsu, Steven Chuang, and **Xiong Gong***
    Effects of Magnetic Nanoparticles and External Magnetostatic Field on the Bulk Heterojunction Polymer Solar Cells
    Scientific Reports, 2015, 5, 9265.
52. M. Z. Zhang, R. D. Hu, H. Chen, Y. Chang, X**. Gong**, F. F. Liu and J. Zhen
    Interfacial interaction and lateral association of cross-seeding assemblies between hIAPPand rIAPP oligomers
    Phys. Chem. Chem. Phys., **2015**, 17, 10373-10382.
53. Kai Wang, Chang Liu, Pengcheng Du, Jie Zheng and **Xiong Gong***
    Bulk Heterojuntion Perovskite Hybrid Solar Cells with Large Fill-Factor

Energy & Environ. Sci., **2015**, 8(4), 1245-1255.

54. Kai Wang, Chang Liu, Xiaowen Hu, Pengcheng Du, Long Chen, Chao Yia, Jiahua Zhu, Jie, Zheng, Alamgir Karima, and **Xiong Gong***
    Efficiencies of Perovskite Hybrid Solar Cells Influenced by Film Thickness and Morphology of $CH_3NH_3PbI_{3-x}Cl_x$ Layer
    Organic Electronics, **2015**, 21, 19-26.
55. C Liu, C. Yi, Y. L. Yang, K. Wang, S. Xiao and X. Gong*
    A Novel Donor-Acceptor Conjugated Polymer for Single-Junction Polymer Solar Cell with 10% Power Conversion Efficiency
    ACS Applied Materials & Interfaces, **2015,** 7(8), 4928-4935.
56. Chang Liu, Kai Wang, Pengcheng Du, Tianyu Meng Xinfei Yu, Stephen Z. D. Cheng and **Xiong Gong***
    High Performance Planar Heteojunction Perovskite Solar Cells with Fullerene Derivatives as the Electron Transport Layer
    ACS Applied Materials & Interfaces, **2015, 7,** 1153-1159.
57. C. Yi, X. W. Hu, H. C. Liu, R. D. Hu, C. H. Hsu, J. Zheng and **X. Gong***
    Efficient Polymer Solar Cells Fabricated from Solvent Processing Additive Solution
    J. Mater. Chem. C., 2015, 3, 26-32.
58. Liu, Chun, Wenzhan Xu, Xiong Guan, Hin-Lap Yip, **Xiong Gong,** Huang Fei, Yong Cao,
    Synthesis of Anthracene-Based Donor-Acceptor Copolymers with a Thermally Removable Group for Polymer Solar Cells
    Macromolecules, **2014**, 47(24), 8585-8593.
59. C. Liu, X. W. Hu, C. M. Zhong, M. J. Huang, K. Wang, Y. Cao, X. Gong,* A. J. Heeger
    Influence of Binary Processing Additives on the Performance of Polymer Solar Cells
    Nanoscale, 2014, 6, 14297-14304.
60. X. W. Hu, K. Wang, C. Liu, T. Y. Meng, Y. Dong,F. Huang, X. Gong,* Y. Cao
    High-Detectivity Inverted Near-Infrared Polymer Photodetectors using Cross-Linkable Conjugated Polyfluorene as an Electron Extraction Layer,
    J. Mater. Chem. C. 2014, 2, 9592-9598.
61. X. W. Hu, C. Yi, M. Wang, C.-H. Hsu, S. J. Liu, K. Zhang, C. M. Zhong, F. Huang, X. Gong* and Y. Cao
    High-Performance Inverted Organic Photovoltaics with Over 1-μm Thick Active Layers
    Adv. Eng. Mater., 2014, DOI: 10.1002/aenm.201400378
62. C. Yi, K. Yue, H. Ren, W. B. Zhang, L. Huang, X. Lu, J. Zheng, G. R. Newkome, S. Z. D. Cheng and X. Gong*
    Water/Alcohol Soluble Neutral Fullerene Derivative to Reengineer the Surface of the Electron Extraction Layer for High Efficiency Inverted Polymer Solar Cells
    ACS Appl. Mater. & Interface, 2014, 6, 14189-14195.

63. K. Wang, H. Ren, C. Yi, Y. Sun, A. Karim and **X. Gong***
    Enhanced efficiency and stability of polymer solar cells by PEDOT:PSS doped with Fe_3O_4 magnetic nanoparticles as an anode buffer layer
    ACS Appl. Mater. & Interfaces, **2014**, 6, 13201-13208.
64. R. D. Hu, M. Z. Zhang, K. Patel, Q. M. Wang, Y. Chang, X. **Gong, G.** Zhang, J. Zheng
    Cross-Sequence Interactions between Human and Rat Islet Amyloid Polypeptides
    Langmuir, **2014**, 30, 5193-5201.
65. P. Pitliya, Y. Sun; J. C. Garza; C. Liu, **X. Gong**, A. Karim, D. Raghavan
    Synthesis and characterization of novel fulleropyrrolidine in P3HT blended bulk heterojunction Solar Cells
    Polymer, **2014**, 55, 1769.
66. X. Liu, Q. D. Li, Y. C. Li, **X. Gong**, S. J. Su, Y. Cao
    Indacenodithiophene core-based small molecules with tunable side chains for solution-processed bulk heterojunction solar cells
    J. Mater. Chem. A: Mater. Ener. Sust., **2014**, 2, 4004-4013.
67. Chao Yi, Rong Hu, He Ren, Xiaowen Hu, Shu Wang, **Xiong Gong*** and Yong Cao
    Protonation process of conjugated polyelectrolytes on enhanced power conversion efficiency in the inverted polymer solar cells
    Journal of Photonics for Energy, **2014**, 4, 04309901-04309908.
68. Bohao Li, He Ren, Hongyi Yuan, Alamgir Karim and Xiong Gong*
    Room-Temperature Solution-Processed MoO_x Thin Film as a Hole Extraction Layer to Substitute PEDOT:PSS in Polymer Solar Cells,
    ACS Photonics, 2014, 1, 87-90.
69. Ming Liu, Yamin Liang, Peihong Chen, Dongcheng Chen, Kunkun Liu, Yunchuan Li, Shengjian Liu, **Xiong Gong**, Fei Huang, Shi-Jian Su, Yong Cao
    Three pyrido[2,3,4,5-lmn] phenanthridine derivatives and their large band gap copolymers for organic solar cells
    J. Materials Chemistry A, **2014**, 2(2), 321-325.
70. R. Zhou, Q. D. Li, X.C. Liu, X. H. Zhu, J. B. Peng, Y. Cao, **X. Gong***
    A solution-processable diketopyrrolopyrrole dye molecule with (fluoronaphthyl)thienyl endroups for organic solar cells
    Dyes and Pigments, 2014, 101, 51-57.
71. Chang Liu, Kai Wang, Xiaowen Hu, Wei Zhang, Yali Yang, Steven Xiao, **Xiong Gong*** and Yong Cao
    Molecular weight effect on the efficiency of polymer solar cells
    ACS Appl. Mater. & Interface, 2013, 5(22), 12163-12167.
72. Xilan Liu, Jinjun Zhou, Jie Zheng, Matthew L. Becker, and **Xiong Gong***
    Water-soluble CdTe quantum dots as an anode interlayer for solution-processed near infrared polymer photodetectors

Nanoscale, 2013, 5, 12474-12479.

73. **Xiong Gong***
    Towards High Performance Inverted Polymer Solar Cells through Interfacial Reengineering
    SPIE, 2013, 8830, 88300G1-88300G16.
74. Kai Wang, He Ren, Hangxing Wang, Chao Yi, Li Huang, Haoli Zhang, Alamgir Karim, and **Xiong Gong***
    Solution-Processed Fe_3O_4 Magnetic Nanoparticle Thin Film Aligned by an External Magnetostatic Field as a Hole Extraction Layer for Polymer Solar Cells
    ACS Appl. Mater. & Interface, 2013, 5, 10325-10330.
75. C. Zhao, X. Li, L. Li, **X. Gong**, Y. Chang, and J. Zheng
    Mimicking the binding and unbinding of Fe^{3+} with transferrin using a single biomimetic Nanochannel
    Chem. Comm., **2013**, 49: 9317-9319.
76. Yang Dong, Xiaowen Hu, Chunhui Duan, Peng Liu, Shengjian Liu, Liuyuan Lan Dongcheng Chen, Lei Ying, Shijian Su**, Xiong Gong**, Fei Huang, and Yong Cao
    A Series of New Medium Band Gap Conjugated Polymers Based on Naphtho[1,2-c:5,6-c]bis(2-octyl-[1,2,3]triazole) for High Performance Polymer Solar Cells
    Adv. Mater., **2013**, *25*, 3638-3688.
77. Chao Zhao, Xiaosi Li, Jiang Wu, Shenfu Chen, Qiuming Wang, Qiuming, **Xiong Gong**, Lingyan Li, and Jie Zheng
    Probing structure-antifouling activity relationships of polyacrylamides and polyacrylates.
    Biomaterials, **2013**, *34(20)*, 4714-4724.
78. X. W. Hu, D. Yang , F. Huang, **X. Gong**,* and Y. Cao
    Solution-processed high-detectivity near-infrared polymer photodetectors fabricated by a novel low-bandgap semiconducting polymer
    J. Phys. Chem. C., **2013**, *117(13)*, 6537-6543.
79. Y. Hua, X. W. Hu, Z. X. Jiang, D. C. Chen, X. Liu, H Nie, S. J. Su, **X. Gong**, and Y. Cao
    Pyridinium salt-based molecules as cathode interlayers for enhanced performance in polymer solar cells
    J. Mater. Chem. A: Mater. Eng. *And Sustainability*, **2013**, *1(10)*, 3387-3394.
80. H. X. Wang, X. F. Yu, C. Yi, H. Ren, C. Liu, Y. Yang, S. Xiao, A. Karim, S. D. Cheng, and **X. Gong***
    Fine-tuning of fluorinated thieno[3,4-b]thiophene copolymer for efficient polymer solar cells
    J. Phys. Chem. C. **2013**, *117(9)*, 4358-4363.
81. C. Yi, **X. Gong***
    Towards high performance inverted polymer solar cells
    Current Opinion in Chemical Engineering, **2013**, *2*, 125.
82. X. W. Hu, M. Wang, F. Huang, **X. Gong**,* and Y. Cao

23% enhanced efficiency of polymer solar cells processed with 1-chloronaphthalene as the solvent additive
Synthetic Metals, **2013**, *164*, 1.

83. H. Ye, X. W. Hu, Z. X. Jiang, D. C. Chen, X. Liu, Xin; H. Nie, S. J. Su, **X. Gong**, and Y. Cao
Pyridinium salt-based molecules as cathode interlayers for enhanced performance in polymer solar cells
J. Mate. Chem. A, **2013**, *1(10)*, 3387.
84. C. Zhao, X. S. Li, L. Y. Li, G. Cheng, **X. Gong**, and J. Zheng
Dual functionality of antimicrobial and antifouling of poly(N-hydroxyethylacrylamide)/salicylate hydrogels
Langmuir, **2013**, *29(5)*, 1517.
85. B. Zhang, X. W. Hu, M. Q. Wang, H. P. Xiao, **X. Gong**, W. Yang, and Y. Cao.
Highly efficient polymer solar cells based on poly(carbazole-alt-thiophene-benzofurazan)
New. J. Chem., **2012**, *36*, 2042.
86. X. L. Liu, T. B. Yang, H. X. Wang, W. Zhang, I. F. Hsieh, S. D. Cheng, and **X. Gong***
Solution-processed Near-infrared Polymer Photodetectors with an Inverted Device Structure
Organic Electronics, **2012**, *13*, 2929.
87. C. L. Wang, W. B, Zhang, H. J. Sun, C. C. Tsai, B. Lotz, **X. Gong**,* and S. Z. D. Cheng
A supramolecular “double-cable” structure with a 129_{44} helix in a columnar porphyrin-C_{60} dyad and the implication in polymer solar cells
Adv. Eng. Mater., **2012**, *2*, 1375.
88. **X. Gong**
Towards high performance inverted polymer solar cells
Polymer (Feature Articles), **2012**, 53, 5437.
89. X. L. Liu, H. X. Wang, T. B. Yang, T. Z. Yu and **X. Gong***
Solution-processed ultrasensitive polymer photodetector with high external quantum efficiency and low dark current
Appl. Mater. & Inter., **2012**, *4*, 3701.
90. T. B. Yang, M. Wang, C. H. Duan, X. W. Hu, L. Huang, J. P. Peng, F. Huang, and **X. Gong***
Inverted polymer solar cells with 8.4% efficiency by conjugated polyelectrolyte
Ener. & Envir. Sci., **2012**, *5,* 8208.
91. T. B. Yang, K. Sun, X. L. Liu, W. Wei, T. Z. Yu, **X. Gong**,* D. L. Wang, and Y. Cao
Zinc oxide nanowire as an electron-extraction layer for broadband polymer photodetectors with an inverted device structure
J*. Phys. Chem. C*., **2012**, *116*, 13650.
92. T. B. Yang, D. G Qin, L. F. Lan, W. B. Huang, **X. Gong**,* J. B. Peng and Y. Cao

Inverted structure polymer solar cells with solution processed zinc oxide thin film as an Electron collection Layer
Science China (Chemistry), **2012**, *55*, 755.

93. T. B. Yang, M. Wang, Y. Cao, F. Huang, L. Huang, J. B. Peng, **X. Gong**,* S. Z. D. Cheng and Y. Cao
Polymer solar cells with a low temperature-annealed sol-gel-derived MoO_x film as an hole extraction layer
Adv. Ene. Mat., **2012**, *2*, 523.
94. W. B. Zhang, Y. F. Tu, H. J. Sun, K. Yue, **X. Gong**,* and S. Z. D. Cheng
Polymer solar cells with an inverted device configuration using polyhedral oligomeric silsesquioxane-[60] fullerene dyad as a novel electron acceptor
Science China (Chemistry), **2012**, *55*, 749.
95. H. L. Dong, H. F. Zhu, Q. Meng, **X. Gong**, and W. P. Hu
Organic photoresponse materials and device
Chem. Soc. Rev., **2012**, *41*, 1754.
96. **X. Gong**,* T. Z. Yu, Y. Cao, and A. J. Heeger
Large open-circuit voltage polymer solar cells by poly (3-hexylthiophene) with multi-adducts fullerenes
Science China, **2012**, *55*, 743.
97. C. L. Wang, W. B. Zhang, R. Van Horn, Y. F. Tu, **X. Gong**,* S. Z. D. Cheng, Y. M. Sun, M. H. Tong, J. H. Seo, B. B. Y. Hsu, and A. J. Heeger
A porphyrin-fullerene dyad with a supramolecular "double-cable" structure as a novel electron acceptor for bulk heterojunction polymer solar cells
Adv. Mater., **2011**, *23(26)*, 2951.
98. M. Wang, X. W. Hu, P. Liu, W. Li, **X. Gong**, F. Huang, and Y. Cao
Donor-acceptor conjugated polymer based on naphtho[1,2-c:5,6-c] bis[1,2,5]thiadiazole for high-performance polymer solar cells
JACS, **2011**, *133(25)*, 9638.
99. **X. Gong**, M. H. Tong, F. G. Brunetti, J. H. Seo, Y. M. Sun, D. Moses, F. Wudl, and A. J. Heeger
Bulk heterojunction solar cells with large open-circuit voltage and electron transfer with small donor-acceptor energy offset
Adv. Mater. **2011**, *23(20)*, 2272.
100. Y. M. Sun, C. J. Takacs, S. R. Cowan, J. H. Seo, **X. Gong**, A. Roy, and A. J. Heeger
Efficient, air-stable bulk heterojunction polymer solar cells using MoOx as the anode interfacial layer
Adv. Mater., **2011**, *23(19)*, 2226.
101. Y. M. Sun, M. F. Wang, **X. Gong**, J. H. Seo, B. B. Y. Hsu, F. Wudl, and A. J. Heeger
Polymer bulk heterojunction solar cells: function and utility of inserting a hole transport and

electron blocking layer into the device structure
J. Mater., Chem., **2011**, *21*, 1365.

102. C. L. Song, C. B. Ma, F. Yang, W. J. Zeng, H. L. Zhang, and **X. Gong**
Synthesis of tetrachloro-azapentacene as an ambipolar organic semiconductor with high and balanced carrier mobilities
Organic Letters, **2011**, *13(11)*, 2880.

103. W. Z. Cai, M. Wang, E. G. Wang, T. B. Yang, J. S. Moon, X. Gong,* and Y. Cao
Solvent effect leading to high performance of bulk heterojunction polymer solar cells by novel polysilafluorene derivatives
J. Phy. Chem., **2011**, *115(5)*, 2314.

104. Y. M. Sun, **X. Gong**, B. H., H. L. Yip, A. K.-Y. Jen and A. J. Heeger
Solution processed crosslinkable hole selective layer for polymer solar cells in the inverted structure
Appl. Phys. Lett., **2010**, *97(19)*, 193310/1-193310/3.

105. Y. M. Sun, M. F. Wang, **X. Gong**, J. H. Seo, B. B. Y. Hsu, F. Wudl and A. J. Heeger,
Polymer bulk heterojunction solar cells: function and utility of inserting a hole transport and electron blocking layer into the device structure
J. Mater. Chem., **2010**, *132(46)*, 16349-16351.

106. F. Xia, R. J. White, X. L. Zuo, A. Patterson, Y. Xiao, D. Kang, **X. Gong**, K. W. Plaxco, and A. J. Heeger
An electrochemical super sandwich assay for sensitive and selective DNA detection in complex matrices
JACS, **2010**, *132*, 14346.

107. Y. Y. Liu, C. L. Song, W. J. Zeng, K. G. Zhou, Z. F. Shi, C. B. Ma, Q. Han, H. L. Zhang, and **X. Gong**
High and balanced hole and electron mobilities from ambipolar thin film transistors by nitrogen containing oligoacences.
JACS, **2010**, *132(46)*, 16349.

108. T. B. Yang, W. Z. Cai, D. H. Qin, E. G. Wang, L. F. Lan, Linfeng; **X. Gong**,* J. B. Peng, and Y. Cao,
Solution-processed zinc oxide thin film as a buffer layer for polymer solar cells with and inverted device structure
J. Phys. Chem. C, **2010**, *114(14)*, 6849-6853.

109. F. Xia, X. L. Zuo, R. Q. Yang, Y. Xiao, D. Kang, A. Valle, **X. Gong**, A. J. Heeger, and K. W. Plaxco
On the binding of cationic, water-soluble conjugated polymers to DNA: electrostatic and hydrophobic interactions
JACS, **2010**, *132(4)*, 1252-1254.

110. W. Zhao, W. Z. Cai, R. Xi. Xu, W. Yang, **X. Gong**, H. B. Wu, and Y. Cao

Novel conjugated alternating copolymer based on 2,7-carbazole and 2,1,3-benzoselenadiazole,
Polymer, **2010**, *51(14)*, 3196-3202.

111. **X. Gong**,* M. H. Tong, S. H. Park, M. liu, A. Jen, and A. J. Heeger
Semiconducting polymer photodetectors with electron and hole blocking layers: high detectivity in the near-infrared
Sensors, **2010**, *10*, 6488-6496.

112. F. Xia, X. L. Zuo, R. Q. Yang, R. J. White, Y. Xiao, D. Kang, **X. Gong**, A. A. Lubin, A. Vallee-Belisle, J. D. Jonathan, BYB, Hsu, and K.W. Paxco
Label-free, dual-analyte electrochemical biosensors: a new class of molecular-electronic logic gates
JACS, **2010**, *132(25),* 8557.

113. F. Xia, X. L. Zuo, R. Q. Yang, R. J. White, Y. Xiao, D. Kang, **X. Gong**, A. A. Lubin, A. Vallee-Belisle, J. D. Jonathan, BYB, Hsu, A. J. Heeger, and K.W. Paxco
On the binding of cationic, water-soluble conjugated polymers to DNA: electrostatic and hydrophobic interactions
PNAS, **2010**, *107(24)*, 10837.

114. C. H. Duan, W. Z. Cai, F. Huang, J. Zhang, M. Wang, T. B. Yang, C. M. Zhong, **X. Gong**, and Y. Cao,
Novel silafluorene-based conjugated polymers with pendant acceptor groups for high performance solar cells
Macro., **2010**, *43(12)*, 5262.

115. F. Xia, X. L. Zuo, R. Q. Yang, R. J. White, Y. Xiao, D. Kang, **X. Gong**, A. A. Lubin, A. Vallee-Belisle, A. J. Heeger, and K.W. Paxco
On the binding of cationic, water-soluble conjugated polymers to DNA: electrostatic and hydrophobic interactions
JACS, **2010**, *132(13)*, 4971.

116. F. G. Brunetti, **X. Gong**, M. Tong, A. J. Heeger and F. Wudl
Strain and Hückel aromaticity driving forces for a promising new generation of electron acceptors in organic electronics
Angew. Chem., **2010**, *49,* 532.

117. W. Z. Cai, **X. Gong**,* Y. Cao
Polymer solar cells: recent development and possible routes for improvement of power conversion efficiency
Solar Energy Materials and Solar Cells, **2010**, *94*, 114.

118. H. L. Dong, S. D. Jiang, L. Jiang, Y. L. Liu, W. P. Hu, S. K Yan and **X. Gong**
Thin film transistor by single crystalline nanowires semiconducting polymer
JACS, **2009**, *131(47)*, 17315-17320.

119. **X. Gong**,* M. H. Tong; J. S. Moon, and A. J. Heeger

Ultrasensitive solution processed polymer photodetectors
SPIE, **2009**, 74180I/1-74180I/14.

120. **X. Gong*** M. H. Tong, Y. J. Xia, W. Z. Cai, J. S. Moon, Y. Cao, G. Yu, C. L. Shieh, B. Nilsson, and A. J. Heeger
High-detectivity polymer photodetectors with spectral response from 300 nm to 1450 nm.
Science, **2009**, *325*, 1665.

121. **X. Gong**,* Y. L. Yang, and S. Xiao
Ambipolar charge transport in polymer light-emitting diodes
J. Phys. Chem., C. **2009**, *113*, 7398.

122. Y. Shao, **X. Gong**, A. J. Heeger, M. Liu, and A. K.-Y. Jen
Long-lifetime polymer light-emitting electrochemical cells fabricated with crosslinkedhole-transport layers
Adv. Mater., **2009**, *21*, 1972.

123. **X. Gong**, H. Benmansour, Hadjar; G. C. Bazan, and A. J. Heeger
Red electrophosphorescence from a soluble binaphthol derivative as host and iridium complex as guest
J. Phys. Chem. B., **2006**, *110(14)*, 7344.

124. **X. Gong**,* C. Soci, C.Y. Yang, and A. J. Heeger
Enhanced electron injection in polymer light-emitting diodes: polyhedral oligomeric silsesquioxanes as dilute additives
J. Phys. D-App. Phys. **2006**, *39 (10)*, 2048.

125. J. Y. Kim, S. H. Kim, K. H. Lee, **X. Gong**, A. J. Heeger
New architecture for high-efficiency polymer photovoltaic cells using solution-based titanium oxide as an optical spacer
Adv. Mater., **2006**, *18(5)*, 572.

126. W. L. Ma, C. Y. Yang, **X. Gong**, and A. J. Heeger
Thermally stable, efficient polymer solar cells with nanoscale control of the interpenetrating network morphology
Adv. Func. Mater., **2005**, *15(10)*, 1617.

127. **X. Gong**,* S. Wang, D. Moses, G. C. Bazan, and A. J. Heeger,
Multilayer polymer light-emitting diodes: white light emission with high efficiency
Adv. Mater., **2005**, *17 (17)*, 2053.

128. W. L. Ma, P.K. Iyer, **X. Gong**,* G. C. Bazan, and A. J. Heeger
Water/methanol-soluble conjugated copolymer as an electron-transporting layer in polymer light-emitting diodes
Adv. Mater., **2005**, *17 (3)*, 274.

129. **X. Gong**,* W. L. Ma, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger
White electrophosphorescence from semiconducting polymer blends
Polymer Materials Science and Engineering, **2004**, *90*, 660.

130. **X. Gong**,* D. Moses, and A. J. Heeger
White light electrophosphorescence from polyfluorene-based light-emitting diodes: utilization of fluorenone defects
J. Phys. Chem., **2004**, *108*, 8601.

131. X. Gong,* W. L. Ma, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger
White electrophosphorescence from semiconducting polymer blends
Adv. Mater., **2004**, *16*, 615.

132. **X. Gong**,* W. L. Ma, J. C. Ostrowski, G. C. Bazan, D. Moses, A. J. Heeger and S. Xiao
End-capping as a method for improving carrier injection in electrophosphorescent light-emitting diodes
Adv. Func. Mater., **2004**, *14*, 393.

133. **X. Gong**, D. Moses, and A. J. Heeger
Excitation energy transfer from polyfuorene to fluorenone defects
Synth. Met., **2004**, *141*, 17.

134. **X. Gong**, W. L. Ma, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger
Conjugated polymer composites for use in electrophosphorescent light-emitting diodes.
SPIE, **2004**, *94*, 5214.

135. **X. Gong**, S. H. Lim, J. C. Ostrowski, D. Moses, C. J. Bardeen, and G. C. Bazan
Phosphorescence from iridium complexes doped into polymer blends
J. Appl. Phys., **2004**, *95*, 948.

136. **X. Gong**, J. C. Ostrowski, G. C. Bazan, D. Moses, A. J. Heeger, M. S. Liu, and A. K.-Y. Jen
Electrophosphorescence from a conjugated coploymer doped with an iridium complex: high brightness and improved operational stability
Adv. Mater., **2003**, *15*, 45.

137. S. Xiao, M. Nguyen, **X. Gong**, Y. Cao, H. B. Wu, D. Moses, and A. J. Heeger
Stabilization of semiconducting polymers with silsesquioxane
Adv. Func. Mater., **2003**, *13*, 25.

138. **X. Gong**, D. Moses, A. J. Heeger, S. Liu and A. K.-Y. Jen
High-performance polymer light-emitting diodes fabricated with a polymer hole injection Layer
Appl. Phys. Lett., **2003**, *83*, 18.

139. **X. Gong**, P. K. Iyer, D. Moses, G. C. Bazan, A. J. Heeger, and S. S. Xiao
Stabilized blue emission from polfluorene-based light-emitting diodes: elimination of fluorenone defects
Adv. Func. Mater., **2003**, *13*, 325.

140. X. Gong, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger
Electrophosphorescence from a polymer guest-host system with an iridium complex as guest: Förster energy transfer and charge trapping

Adv. Func. Mater., **2003**, *13*, 439.

141. S. H. Lim, **X. Gong**, J. C. Ostrowski, G. C. Bazan, D. Moses, and C. J. Bardeen
Temperature dependence of electronic energy from a polymer host to a triplet emitter in light emitting diode materials
Chem. Phys. Lett., **2003**, *376*, 55.

142. **X. Gong**, J. C. Ostrowski, D. Moses, G. C. Bazan, and A. J. Heeger
High performance polymer based electrophosphorescent light-emitting diodes
J. Polymer Science, Part B, Polymer Physics, **2003**, *41*, 2691.

143. R. A. Negres, **X. Gong**, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger,
Origin of efficient light emission from a phosphorescent polymer/organometallic guest-host system. *Phys. Rev. B*., **2003**, *68*, 115209.

144. **X. Gong**,* P. K. Ng and W. K. Chan
Light-emitting devices based on ruthenium bipyridine complexes coupled with cadmium sulfide nanoparticles
J. Nanosc. & Nanotech., **2002**, *2 (2)*, 151.

145. **X. Gong**, J. C. Ostrowski, G. C. Bazan, D. Moses, and A. J. Heeger.
Red electrophosphorescence from polymer doped with iridium complex
Appl. Phys. Lett., **2002**, *11,* 3711.

146. **X. Gong**, M. R. Robinson, J.C. Ostrowski, D. Moses, G. C. Bazan, and A. J. Heeger
High-efficiency polymer-based electrophosphorescent devices
Adv. Mater., **2002**, *14*, 581.

147. D. Wang, **X. Gong**, P. S. Heeger, F. Rininsland, G. C. Bazan, and A. J. Heeger.
Biosensors from conjugated polyelectrolyte complexes
PNAS, **2002**, *99*, 49.

148. P. K. Ng, **X. Gong**, S. H. Chan, et al.,
The role of ruthenium and rhenium diimine complexes in conjugated polymers that exhibit interesting opto-electronic properties
Chemistry-A European Journal, **2001**, *7 (20)*, 4358.

149. **X. Gong**,* L. Liu, and W. J. Chen
Structures and fluorescence of nanocrystallines MSO_4:xSm^{3+} (M=Ca, Sr, Ba; x=0.001-0.005).
Optical Materials, **2000**, *15(2)*, 143.

150. **X. Gong**,* L. Liu, and W. J. Chen
Preparation and photoluminescence of nanocrystallines MSO_4:xTb^{3+} (M=Ca, Sr, Ba; x=0.001-0.005)
J. Appl. Phys., **2000**, 88(7), 4389. **X. Gong**, P. Wu, W. Chen, et al.,

151. **X. Gong**,* L. Liu, and W. J. Chen
Effect of r-ray irradiation on crystal structures and luminescent properties of nanocrystallines MSO_4:xEu^{3+} (M=Ca, Sr, Ba; x=0.001- 0.005)

J. Phys. Chem. Solids, **2000**, *61*, 115.

152. W. K. Chan, P. K. Ng, **X. Gong**, et al.
Light-emitting multifunctional rhenium (I) and ruthenium (II) 2,2'-bipyridylc complexes with bipolar character
Appl. Phys. Lett., **2000**, *75*, 3920.

153. W. K. Chan, P. K. Ng, **X. Gong**, et al.
Synthesis and electronic properties of conjugated polymers based on rhenium or ruthenium dipyridophenazine complexes
J. Mater. Chem., **1999**, *9 (9),* 2103.

154. W. Y. Ng, **X. Gong**, and W. K. Chan
Electronic and light-emitting properties of some polyimides based on bis(2,2 ': 6 ',2 ' terpyridine) ruthenium(II) complex
Chem. Mater., **1999**, *11 (4),* 1165.

155. S. J. Hou, **X. Gong**, and W. K. Chan.
Synthesis and characterization of polystyrene-block-polyisoprene functionalized with aromatic 1,3,4-oxadiazoles by metal catalyzed reaction
Macromol. Chem. Phys., **1999**, *200*, 100.

156. **X. Gong**, P. Wu, W. Chen, and H. X. Yang,
Preparation and optical properties of nanocrystallines $RE_2Sn_{2-x}B'_xO_7$ (RE=Sm, Ce; B'= Fe, Co, Ni; x= 0.0 -1.0)
J. Mate. Res., **1998**, *13 (2)*, 467.

157. **X. Gong**, W. Chen, et al.,
Photoluminescence and up-conversion optical properties of nanocrystallines $CaS:Sm^{3+}$
Appl. Phys. Lett., **1998**, *73*, 2875.

158. **X. Gong**, P.K. Ng, and W.K. Chan.
Trifunctional light-emitting molecules based on rhenium and ruthenium bipyridine complexes
Adv. Mate, **1998**, *16*, 1337.

159. S. C. Yu, **X. Gong** and W. K. Chan.
Synthesis and characterization of polybenzobisoxazoles and polybenzobisthiazoles with 2,2'- bipyridyl units in the backbone
Macromoleculers, **1998**, *31(17)*, 5639.

160. P. Wu, **X. Gong**, et al.,
Image storage based on biphotonic holograpy in azo materials
Appl. Phys. Lett., **1998**, *72(4)*, 418.

161. P. Wu, **X. Gong**, et al.,
Transient biphotonic holographic gratings in azo materials
Phys. Rew. B, **1998**, *57*, 3874.

162. W. K. Chan, **X. Gong**, and W.Y. Ng

Photocurrent and charge mobility in PPV polymers
Appl. Phys. Lett., **1997**, *71 (20)*, 1919.

163. W.K. Chan, **X. Gong**, and W.Y. Ng
Photoconductivity and charge transporting properties of metal-containing poly(p-phenylenyinylene)s
Appl. Phys. Lett., **1997**, *71*, 2919.

164. P. K. Ng, **X. Gong**, and W.K. Chan.
Quinoxaline-based conjugated polymers containing ruthenium(II) bipgridine metal complex *Macromol Rapid Commu.*, **1997**, *18*,1007.

165. P. Wu, **X. Gong**, et al.,
Biphtonic self-diffraction in azo-doped polymer film
Appl. Phys. Lett., **1997**, *70(10)*, 1224.

166. P. Wu, W. Chen, **X. Gong**, et al.,
Red-band holographic storage in azo dye sensitized by noncoherent light
Optics Letters, **1996**, *21(6),* 429.

There are another 23 publications with Chinese version

BOOK CHAPTERS

1. **X. Gong** (invited)
Organic electronics and self-powered electronics, Pan Stanford Publishing, 2016.
2. C. Yi and **X. Gong** (invited)
Towards high performance inverted polymer solar cells
Progress in Polymer Engineering, edited by Thein Kyu, Elsevier, 2012
3. **X. Gong** (invited)
Polymer light-emitting diodes, Wiley-VCH, October 2012
4. **X. Gong** (invited)
Polymer Photovoltaic Cells, Chinese Science Press, 2015, November
5. **X. Gong** (invited), A. J. Heeger
Polymer White Light-emitting Diodes, Pan Stanford Publishing, 2008
6. **X. Gong** (invited), S. Wang
Polymer Light-Emitting Diodes: Devices and Materials, CRC published, 2008
7. **X. Gong**, D. Moses, A. J. Heeger
Polymer Based Light Emitting Diodes (PLEDs) and Displays Fabricated from Arrays of PLEDs in a book entitled “Electroluminescence-from Synthesis to Devices” edited by Prof. Klaus Műllen, Wiley-VCH Verlag, 2005.
8. **X. Gong** with other 20 co-authors
Modern Science and Technological English-Chinese Dictionary
Tianjing University Press, Tianjing, P. R. China, 1568pp, 1996.
9. H. X. Yang and **X. Gong**
Inorganic Solid State Chemistry
Tianjin Science and Technological Press, Tianjing, P. R. China, 324pp, 1995.

GRANTED PATENTS

1. PEDOT:PSS composite films having enhanced thermoelectric properties
   Gong, Xiong; Yi, Chao, US 20170222113 A1 20170803.
2. Perovskite hybrid heterojunction solar cells with fullerene perovskite composite layer for improved performance
   Gong, Xiong; Liu, Chang; Wang, Kai, US 20170125172 A1 20170504
3. Photodetector utilizing quantum dots and perovskite hybrids as light harvesters
   Gong, Xiong; Liu, Chang, US 20170062139 A1 20170302
4. An organic polymer photo device with broadband response and increased photo-responsitivity
   Gong, Xiong; Cheng, Stephen Z. D. US 20150318481 A1 20151105.
5. Polyhedral oligomeric silsesquioxane organic/polymeric dyads and its application for organic photovoltaic cells
   Cheng, Stephen Z. D.; Zhang, Wenbin; **Gong, Xiong**, US 20140060650 A1 20140306.
6. P-type transition metal oxide-based films serving as hole transport layers in organic optoelectronic devices
   Gong, Xiong; Yang, Tingbin, US 9252365 B2 20160202
7. Ultrasensitive solution-processed perovskite hybrid photodetectors
   Gong, Xiong; Hu, Xiaowen; Du, Pengcheng, WO 2016014845 A1 20160128
8. Multilayer polymer light-emitting diodes for solid state lighting applications
   Gong, Xiong; Heeger, Alan J.; Moses, Daniel; Bazan, Guilermo C.; Wang, Shu
   PCT Int. Appl. (2006), WO 2006094101 A1 20060908.
9. White electrophosphorescence from semiconducting polymer blends
   Gong, Xiong; Ma, Wanli; Ostrowski, Jacek; Bazan, Guillermo C.; Moses, Daniel; Heeger, Alan J.
   U.S. Pat. Appl. Publ. (2005), US 20050073245 A1 20050407
10. Metal-insulator-metal device and their methods of fabrication
    Gong, Xiong; Yang, Kaixia; Gang, Yu; Boo, Nillson; Lee, Hsing Chung
    US 8222,077 B2
11. High Sensitivity Solution-processed Polymer Photodetectors with an Inverted Device Structure
    Gong, Xiong, USPTO 61-614684
12. Infrared polymer photodetectors
    Gong, Xiong, USPTO 61/702,785
13. Broadband polymer photodetectors using zinc oxides nanowire as an electron-transporting layer
    Gong, Xiong, Yang, Tingbin, US 61/614,684
14. Solution-processed Perovskite Based Organic Inorganic Hybrid Photodetectors
    Gong, Xiong, Wang, Kai, Liu, Chang
    USPTO: 61/951,567

15. Enhanced electrical conductivity and thermoelectric performance of poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) by binary secondary dopants
    Gong, Xiong, Yi, Chao, USPTO: 62/110,642.
16. Ultrasensitive solution-processed perovskite hybrid photodetectors
    Gong, Xiong; Wang, Kai; Liu, Chang
    PCT Int. Appl. (2015), WO 2015187225 A2 20151210.
17. Metal-oxide thin film as a hole-extraction layer for heterojunction solar cells
    Gong, Xiong; Li, Bohao; Ren, He
    PCT Int. Appl. (2015), WO 205070013 A1 20150514.
18. Methods and devices comprising soluble conjugated polymers
    Bazan, Guillermo C.; Liu, Bin; **Gong, Xiong**; Heeger, Alan J.; Ma, Wanli; Iyer, Parameswar.
    U.S. (2015), US 9017766 B2 20150428.
19. Electron donor-fullerene conjugated molecules for organic photovoltaic cells
    Gong, Xiong; Cheng, Stephen Z. D.; Zhang, Wei
    U.S. Pat. Appl. Publ. (2014), US 20140174536 A1 20140626.
20. An organic polymer photo device with broadband response and increased photo-responsitivity
    Gong, Xiong; Cheng, Stephen Z. D.
    PCT Int. Appl. (2014), WO 2014089066 A1 20140612.
21. Broadband polymer photodetectors using zinc oxide nanowire as an electron-transporting layer
    Gong, Xiong
    U.S. Pat. Appl. Publ. (2013), US 20130248822 A1 20130926.
22. Enhanced efficiency polymer solar cells using aligned magnetic nanoparticles
    Gong, Xiong
    U.S. Pat. Appl. Publ. (2013), US 20130247993 A1 20130926
23. Broadband polymer photodetectors using zinc oxide nanowire as an electron-transporting layer
    Gong, Xiong
    PCT Int. Appl. (2013), WO 2013142870 A1 20130926.
24. Enhanced efficiency polymer solar cells using aligned magnetic nanoparticles
    Gong, Xiong
    PCT Int. Appl. (2013), WO 2013142876 A1 20130926.
25. p-type transition metal oxide-based films serving as hole transport
    Gong, Xiong; Yang, Tingbin
    PCT Int. Appl. (2013), WO 2013063562 A1 20130502
26. Multilayer polymer light-emitting diodes for solid state lighting applications
    Gong, Xiong; Heeger, Alan J.; Moses, Daniel; Bazan, Guillermo C.; Wang, Shu
    U.S. (2011), US 8076842 B2 20111213.
27. Multilayer films for package applications and making film by a solution process
    Gong, Xiong; Yu, Gang
    U.S. Pat. Appl. Publ. (2009), US 20090278277 A1 20091112

28. Systems and methods for improving the qualities of polymer light-emitting electrochemical cells
    Shao, Yan G.; Bazan, Guillermo C.; Heeger, Alan J.; **Gong, Xiong**
    U.S. Pat. Appl. Publ. (2008), US 20080303432 A1 20081211.

INVITED PRESENTATIONS

1. "Perovskite solar cells via polymer linked perovskite materials", 2018 Interface Conference of Synthetic Metals, Busan, South Korea, July 2, 2018.
2. "Solution-processed hybrid perovskite solar cells via novel materials and interfacial engineering", Lanzhou University, June 26, 2018.
3. "Perovskite solar cells by novel perovskite materials", 2nd International conference of Bioinspired Materials and Engineering, Beihang University, June 22, 2018.
4. "Solution-processed hybrid perovskite solar cells", Department of Polymer Science and Engineering, College of Materials Science and Engineering, Lanzhou JIaotong University, March 8, 2018.
5. "High-performance solution-processed hybrid perovskite solar cells via novel materials", Institute of PhotoChemistry, Chinese Academy of Science, March 6, 2018.
6. "High-performance solution-processed hybrid perovskite solar cells via novel materials", Department of Chemical Engineering and Materials Science, Michigan State University, January 11, 2018.
7. "Organic and organic-inorganic hybrid electronics", Department of Chemical Engineering, Taiwan High Technology, Dec. 28, 2017.
8. "Solution-processed polymer and perovskite solar cells via novel materials", Department of Chemical Engineering, National Jiaotong University, Dec. 27, 2017.
9. "Solution-processed organic-inorganic hybrid electronics via novel materials", Department of Photonic Engineering, National Chengkung University, Dec. 26, 2017.
10. "Solution-processed perovskite solar cells via novel materials and device engineering", Department of Chemistry, National Taiwan University, Dec. 23, 2017.
11. "High-performance solution-processed hybrid perovskite solar cells", Charles D. Davidson School of Chemical Engineering, Purdue University, Oct. 17, 2017.
12. "Uncooled ultrasensitive solution-processed broadband photodetectors", Department of Chemistry, Clemson University, Oct. 5, 2017.
13. "High-performance solution-processed hybrid perovskite solar cells", College of Chemistry and Chemical Engineering, Lanzhou University, Aug. 23, 2017.
14. "Magnetic effects on solution-processed solar cells" Chinese CAS Photochemistry Conference, Lanzhou, Aug. 24, 2017, China.
15. "Solution-processed perovskite solar cells via novel materials and device engineering", Lanzhou Chemical Physics Institute, CAS, Lanzhou, Aug. 25, 2017, China.

16. “Novel materials for solution-processed photovoltaics” 2nd Northwest Energy and Environmental Symposium, Lanzhou, Aug. 26, 2017, China.
17. “Magnetic effects on solution-processed solar cells” 2017 ChinaNano, Beijing, Aug. 30, 2017, China.
18. “Little science of plastics”, Eastwood Elementary School, Hudson, OH, Jan. 27, 2017, USA.
19. “Printable flexible electronics”, Dunhuang, Jan. 11, 2017, China.
20. “High-performance solution-processed perovskite photovoltaics”, Department of Chemistry, University of Hong Kong, Hong Kong, Jan. 6, 2017, China.
21. “High-performance perovskite photovoltaics vis novel materials and device structure”, International Conferences for Renewable Energy and Advanced Materials, Hong Kong, Jan. 5, 2017, China.
22. “High-performance perovskite photovoltaics vis novel materials and device structure”, Hong Kong Baptist University, Hong Kong, Dec. 29, 2016, China.
23. “High-performance perovskite photovoltaics vis novel materials and device structure”, Lanzhou University, Lanzhou, Dec. 27, 2016, China.
24. “Polymer solar cells vis novel materials and device structure”, China University of Geosciences, Wuhan, Dec. 23, 2016, China.
25. “High-performance perovskite photovoltaics vis novel materials and device structure”, Zhejiang University of Science and Technology, Hangzhou, Dec. 22, 2016, China.
26. “High-performance perovskite photovoltaics vis novel materials and device structure”, Xian Jiaotong University, Xian, Dec. 21, 2016, China.
27. “Interfacial engineering for high-performance perovskite photovoltaics”, Nankai University, Tianjin, Dec. 19, 2016, China.
28. “Solution-processed perovskite photovoltaics by novel materials”, Tianjin University, Tianjin, Dec. 16, 2016, China.
29. “Solution-processed perovskite solar cells”, Institute of Chemistry, CAS, Beijing, Dec. 15, 2016, China.
30. “Uncooled solution-processed broadband perovskite photodetectors”, 2016 SPIE Annual Conference, San Diego, Sept. 1st, 2016, USA.
31. “Solution-processed broadband perovskite photodetectors”, 252 ACS Annual Conference, Philly, Aug. 23rd, 2016, USA.
32. “Printable polymer flexible electronics” The University of Akron, July 9, 2016, Akron, USA
33. “Solution-processed perovskite photovoltaics via novel materials and device engineering”, CAS University, July 4th, 2016m Beijing, China.
34. “Magnetic effects on solution-processed solar” 2016 Chinese Chemistry Society Conferences, July 3rd, 2016, Dalian, China.
35. “Printable polymer flexible electronics” Shangxi Normal University, July 1st, Xian, China.

36. “Solution-processed perovskite photovoltaics via novel materials and device engineering”, International Conference of Synthetic Metals, Shangxi Normal University, July 1st, 2016, Xian, China.
37. “Printable polymer flexible electronics” Jianghan University, June 30, 2016, Wuhan, China
38. “Solution-processed perovskite photovoltaics via novel materials and device engineering”, International Conference of Synthetic Metals, June 28, 2016, Guangzhou, China.
39. “Magnetic effects on solution-processed solar” 2nd International Symposium on the Science of Plastic Electronics, June 25, 2016, Beijing, China.
40. “Solution-processed perovskite photovoltaics via novel materials and device engineering”, Institute of Chemistry, CAS, June 23, 2016, Beijing, China.
41. “Printable polymer flexible electronics” Symposium for REU Students, The University of Akron, June, 11, Akron, USA.
42. “Uncooled solution-processed broad bandgap photodetectors”, College of Engineering, North Carolina State University, March 24, 2016, Raleigh, NC, USA.
43. “Solution-processed photovoltaics novel materials and device engineering”, Department of Materials Science and Engineering, University of North Texas, Feb. 25, 2016, Houston, Denton, USA.
44. “Higher performance solution-processed solar cells through novel materials and device engineering”, Department of Electric Engineering, University of Houston, Feb. 19, 2016, Houston, TX, USA.
45. “Higher performance solution-processed solar cells through novel materials and device engineering”, Department of Materials Science and Engineering, Ohio State University, Jan. 26, 2016, Columbus, OH, USA.
46. “Uncooled ultrasensitive solution-processed broad-band photodetectors” Air Force Research Lab., Wright-Patterson, Jan. 25, 2016, Dayton, OH, USA.
47. “Printable flexible polymer electronics” Nanjing Normal University, Nanjing, Oct., 2015, P. R. China.
48. “High-performance polymer solar cells via novel materials and device engineering” Nanjing Normal University, Nanjing, Oct., 2015, P. R. China.
49. “Solution-processed perovskite hybrid solar cells?” Zhejiang University, Hangzhou, Oct., 2015, P. R. China.
50. “15 % efficiency from single junction polymer solar cells, POSSIBILITY?” 2015 China Polymer Conference, Suzhou, Oct., 2015, P. R. China.
51. “Magnetic effects on polymer solar cells”, 10th International Chinese Organic Electronics, Aug. 7th to 10th, Beijing, P. R. China.
52. “Possibility to observe 15% efficiency form single junction polymer solar cells”, Beijing University and Technology, Aug. 6th, Beijing, P. R. China.

53. “Solution-processed perovskite hybrid solar cells” Ningbo Institute of Materials Science, CAS, Ningbo, P. R. China, June 29, 2015.
54. “Magnetic effect on polymer solar cells” 13th International Conference of Polymer for Advanced Technology, Hangzhou, P. R. China, June 27, 2015.
55. “Approaching 15% Efficiency Polymer Solar Cells” Hangzhou University, P. R. China, Hangzhou, June 26, 2015.
56. “Perovskite hybrid solar cells” Northwest Normal University, Lanzhou, P. R. China, June 15, 2015.
57. “Perovskite hybrid solar cells” Northwest Normal University, Lanzhou, P. R. China, June 6 2015.
58. “Polymer electronics” Hexi University, Zhangye, P. R. China, June 18, 2015.
59. “Solution-processed high performance polymer solar cells” Northwest Normal University, Lanzhou, P. R. China, June 5, 2015.
60. “Printable flexible polymer electronics” Lanzhou University, Lanzhou, P. R. China, June 16, 2015.
61. “Polymer solar cells by novel materials” Lanzhou University, Lanzhou, P. R. China, June 2, 2015.
62. “Little Science of Plastics” Hudson Elementary School, Feb. 17, 2015, Hudson, OH, USA
63. “High efficiency of planar heterojunction perovskite solar cells by fine-tuning crystallization morphology” MRS Fall Conferences, Nov. 30th, 2014, Boston, MA, USA.
64. “High performance solution-processed polymer solar cells via novel materials and interfacial engineering” The Akron Polymer Conferences, Akron, OH, Oct. 2-3, 2014.
65. “Towards 15% Efficiency Polymer Solar Cells” The First International Symposium on the Science of Plastic Electronics, Beijing, P. R. China, Sept. 25, 2014.
66. “Polymer electronics” Nanjing Chemical Company, Nanjing, P. R. China, Sept. 23, 2014
67. “High performance polymer solar cells via novel materials” Suzhou Nanoinstitute, CAS,
68. Suzhou, P. R. China, Sept. 22, 2014.
69. “High performance polymer solar cells via interfacial engineering” Suzhou University, Suzhou, P. R. China, Sept. 22, 2014.
70. “Inverted polymer solar cells via novel materials” Nanjing University, Nanjing, P. R. China, Sept. 21, 2014.
71. “Printable Polymer Electronics”, Dutong University, Datong, P. R. China, Sept. 17, 2014.
72. “High performance solution-processed polymer solar cells” First Ohio Conference on the sustainable use of greenhouse gases, Columbus, OH, Aug. 18, 2014.
73. “Polymer solar cells with over 1 μm thickness active layer” Chinese Chemistry Annual Congress, Beijing, Aug. 5th, 2014.
74. “2D conjugated polymers for polymer solar cells with over 10% efficiency” Chinese Chemistry Annual Congress, Beijing, Aug. 4th, 2014.

75. "Over 10% efficiency from single junction polymer solar cells", 6th International symposium on polymer materials science, Akron, OH, July 28, 2014.
76. "High performance polymer solar cells via novel materials and interfacial engineering", Beihang University, Beijing, China, June 30, 2014.
77. "High performance polymer solar cells via novel materials and interfacial engineering", Chemistry Institute, CAS, Beijing, China, June 29, 2014.
78. "High performance polymer solar cells via device engineering", Nankai University, Tianjin, China, June 18, 2014.
79. "High performance polymer solar cells via novel materials", Tianjin University, Tianjin, China, June 17, 2014.
80. "Polymer electronics", Lanzhou City University, Lanzhou, China, June 10, 2014.
81. "Inorganic Chemist meets with Polymer Scientist", Northwest Normal University, Lanzhou, China, June 9, 2014.
82. "Interfacial engineering for high performance polymer solar cells", Lanzhou University, Lanzhou, China, June 12, 2014.
83. "Inverted infrared polymer photodetectors", Lanzhou Institute of Chemical Physics, CAS, Lanzhou, China, June 13, 2014.
84. "High performance single junction polymer solar cells by 2D conjugated polymers", International conference on polymer chemistry, Shanghai, P. R. China, June 4, 2014.
85. "Interfacial engineering for high performance inverted polymer solar cells", ACS Dallas Meeting, March 17, 2014
86. "High performance polymer solar cells through device design and novel materials", Tsinghua University, Nov. 20th, 2013, Beijing, China
87. "Polymer Solar Cells: Device and Materials", Norfolk State University, Sept. 27th, 2013, Norfolk, VA, USA.
88. "Novel "electron donor-fullerene" conjugated molecules for polymer solar cells with an inverted device structure", 246 ACS conference, Sept. 12, 2013, Indianapolis, IN, USA
89. "Towards high performance solar cells" South China University and Technology, June, 2013, Guangzhou, China.
90. "Polymer solar cells by novel conjugated fullerene molecules", Oka Ridge National Laboratory users' workshop, Aug. 12-15th, 2013, Oak Ridge, TN, USA
91. "Over 10 % efficiency polymer solar cells", University of Tennessee, Aug. 15th, 2013, Knoxville, TN, USA.
92. "Towards high performance inverted polymer solar cells through interfacial engineering", SPIE, Aug. 2013, San Diego, CA, USA.
93. "Hybrid infrared polymer photodetectors", Lanzhou University, Jul. 2013, Lanzhou, China
94. "Solution-processed high performance polymer solar cells: device structures and materials", Lanzhou Institute of Chemical Physics, CAS, Jul. 2013, Lanzhou, China

95. “Renewable energy”, Invited by Government of Dunhuang City, Gansu Province, July 2013, Dunhuang, China
96. “How to approach high performance organic solar cells”, National Science Foundation of China, Jul. 2013, Beijing, China
97. “Inverted infrared polymer photodetectors”, International workshop on organic electronics, Jun. 2013, Beijing, China
98. “Science of Plastics”, Evamere Elementary School, May, 2013, Hudson, OH, USA
99. “High performance inverted polymer solar cells”, Department of Chemical Engineering, University of Akron, April 2013, Akron, OH, USA
100. “High performance inverted polymer solar cells”, MRS Spring meeting, Apr. 2013, SFO,
CA, USA
101. “Approaching high performance polymer solar cells by interfacial engineering and novel materials”, 2nd symposium of organic photovoltaic, Kent State University, April 2013, Kent,
OH, USA
102. “Towards high performance solar cells”, APS March conference, Mar. 2013, Baltimore,
Maryland, USA
103. “Solution-processed polymer electronics”, Research for Lunch, Research office of University of Akron, Feb. 2013, Akron, OH, USA
104. “Towards high performance polymer photovoltaic cells”, Lanzhou University, Dec. 2012, Lanzhou, China
105. “Inverted polymer solar cells”, Northwest Normal University, Dec. 2012, Lanzhou, China
106. “Interface engineering for high performance polymer solar cells”, Nov. 2012, MRS Fall meeting, Boston, MA
107. “High performance polymer solar cells by novel materials”, University of California Santa Barbara, Oct. 30th, 2012, CA, USA
108. “High performance solution-processed polymer solar cells”, University of Pittsburgh, Oct. 2012, PA, USA
109. “Solution-processed organic photovoltaic cells”, Case Western Reserve University, Sept. 2012, Cleveland, OH, USA
110. “High performance inverted polymer solar cells”, NSF and ONR workshop, Sept. 2012, DC, USA
111. “Inverted polymer solar cells”, Institute of Chemistry, CAS, July 4, 2012, Beijing, China
112. “Towards high performance inverted polymer solar cells”, IUPAC Polymer Congress, June 2012, USA
113. “Polymer solar cells” June 2012, Polymer Conferences, Akron, OH

114. "Flexible electronics", Plastic Society of Akron and Cleveland, Apr. 2012, Akron, OH
115. "Organic electronics", Akron Polymer Society, Nov. 2011, Akron, OH, USA
116. "Polymer solar cells with an inverted device structure", MRS meeting, Nov. 2011, Boston, USA
117. "Polymer solar cells with an inverted device structure", International Chinese Organic Electronics, Oct. 2011, Zhang Jiajie, China
118. "Solution-processed polymer photodetectors", Akron Advanced Materials, Sept. 2011, Akron, OH, USA
119. "Solution processed infrared polymer photodetector", SPIE conference, Aug. 2011, San Diego, CA, USA
120. "Ultrasensitive polymer photodetectors", South China University of Science and Technology, Jun. 2011, Guangzhou, China
121. Printable polymer electronics", Lanzhou University, Jun. 2011, Lanzhou, China
122. "Polymer solar cells by novel electron acceptor", Polymer Congress, May, 2011, Beijing, China
123. "Infrared polymer photodetector", Peking University, May. 2011, Beijing, China
124. "Polymer solar cells with an inverted device structure", Beijing University Chemical Technology, May 2011, Beijing, China
125. "Solution-processed Organic Electronics", Dec. 2010, Cleveland, OH, USA
126. "Infrared polymer photodetector", SPIE conference, Aug. 2010, San Diego, CA, USA
127. "Solution-processed organic photodetectors", Xi An 3rd International Organic Electronics, June 2010, Xian, China
128. "Polymer solar cells", Northwest Normal University, June 2010, Lanzhou, China
129. "Solution-processed organic photodetectors", Lanzhou University, Jun. 2010, Lanzhou, China
130. "Solution-processed organic photodetectors", South China University of Science and Technology, June 2010, Guanzhou, China
131. "Polymer photodetector", MRS Spring Meeting, SFO, April 2010, CA, USA
132. "Polymer solar cells with larger open-circuit voltage", MRS Spring Meeting, SFO, April 2010, CA, USA
133. "Ultrasensitive polymer photodetectors", UCSB Organic Electronics Workshop, Sept. 2009, Santa Barbara, CA, USA
134. "Polymer photodetector", SPIE, Aug. 2009, San Diego, CA, USA
135. "Solution-processed ultrasensitive polymer photodetectors", PS, Mar. 2009, Pittsburgh, PA, USA
136. "Polymer photodetectors", US-Japan Polymat, Aug. 2008, Ventura, CA, USA
137. "Semiconducting polymers and its applications", Lanzhou City University, Oct. 2007, Lanzhou, China
138. "Organic/polymer optoelectronic devices", Lanzhou University, Sept. 2007, Lanzhou,

China

139. "Polymer electronic and optoelectronic devices", Northwest Normal University, Sept. 2007, Lanzhou, China
140. "Polymer solar cells", South China University of Science and Technology, June 2007, Guanzhou, China
141. "Fluorenone defects in polyfluorens", Workshop on Organic/Polymer Devices, May, 2007, Montreal, Canada
142. "Materials and devices of PLEDs and polymer Solar Cells", Peking University, Sept. 2006, Beijing, China
143. "Semiconducting polymers and polymer optoelectronic devices", Lanzhou Jiaoton University, Sept. 2006, Lanzhou, China
144. "Single- and multilayer white PLEDs for solid state lighting application", Department of Electrical and Computer Engineering, University of California, San Diego, Aug. 2006, San Diego, CA, USA
145. "Plastic electronics", Institute of Chemistry, Chinese Academy of Science, Aug. 2006, Beijing, China
146. "Recently progress on PLEDs and solar cells at UCSB", International Conference on Organic/Polymer Devices, Jul. 2006, Changchun, China
147. "Multilayer white PLEDs", SPIE Conference, 2006, San Diego, CA, USA
148. "White PLEDs", SPIE Conference, 2005, Denver, CO, USA
149. "Polymer electrophosphorescent LEDs", SPIE Conference, Aug. 2004, San Diego, CA, USA
150. "White light PLEDs", ICSM, 2004, Australia
151. "Stabilized blue emission from PLEDs made by polyfluorenes", APS meeting, Mar. 2003, Austin, TX, USA
152. "Single layer white PLEDs", ACS Conference, 2003, Anaheim, CA, USA

TEACHING AND MENTORING EXPERIENCE

1. 2010-present, Department of Polymer Engineering, University of Akron

   (1) Mentoring/Supervising:

   - 1 research associate, 5 Ph. D. students and 6 M.Sc. students, 2 undergraduate students, 2 high-school students, 1 high school teacher currently in my research group,
   - 9 Ph. D. and 20 M Sc students graduated in 2012, 2013, 2014, 2015, 2016 and 2017

   (2) Teaching

   - Independent research, 3+2 AMP graduate students, evaluation rate: 4.86/5 (2017).
   - Semiconducting Polymers, graduate course, evaluation ratings: 4.67/5 (2011); 4.80/5 (2012); 4.80/5 (2014), 4.80/5 (2016).

- Flexible Electronics, graduate course, evaluation ratings: 4.92/5 (2011), 4.90/5(2013), 4.88/5 (2015), 4.86/5 (2017).
- Electronic properties of materials, graduate course, evaluation ratings: 4.76/5 (2013), 4.85/5(2014), 4.88/5 (2016).
- Polymer Science for Engineers, undergraduate course, evaluation rating: 4.38/5(2012).

2. 2007~present State Key Laboratory of Luminescence Materials and Devices, South China University of Technology, P. R. China

(1) Mentoring/supervising:

- 2 Ph. D. students and 2 M.Sc. students currently in my research group.
- 8 Ph.D. students and 9 M. Sc. students graduated since 2008 to 2017.

SERVICES

- Committees (Graduate Program Review, Admissions, Faculty Search (3 times), Library, Dean Search, University Research, etc.)
- Review Panels (Air Force, NSF, Canada, Swiss NSF, Hong Kong, China NSF, Iowa State, AAAS)
- Conference Organizer (2014 ACS Dallas, 2015 PPS Cleveland, 2016 ACS Philadelphia, 2016 ICSM Guangzhou, 2015 and 2016 First and Second Flexible Electronics: Science and Engineering)

REGULAR REVIEWER (25 journals)

Science	Nature Photonics	Nature Comm.
Chem. Rev.	J. Am. Chem. Soc.	Ange. Chem. Inter. Edi.
Adv. Mater.	Adv. Func. Mater.	Adv. Eng. Mater.
J. Phys. Chem.	Chem. Phys.	Polymer
J. Polymer Science	Appl. Phys. Lett.	J. Photovoltaic Cells
J. Phys. D. Appl. Phys.	Nano Sci.	Langmuir
Macromolecule	Macr. Rapid Comm.	Synth. Metal
Sol. Ener. Mate. and Sol. Cells	ACS Appl. Mate. & Inter.	Nano Scale

MEMBERSHIP OF ACADEMIC ASSOCIATIONS

- Member of Materials Research Society (MRS)
- Member of American Chemistry Society (ACS)
- Member of Society of Displays (SID)