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Editorial Board Member, Scientific Reports (published by Nature)
Associate Editor, Journal of Emerging Materials Technology (published by Elsevier)

HIGHLIGHT ACCOMPLISHMENTS

- Scientific Contributions
 - 167 articles published in the peer reviewed journals including in Science, with over 17000 peers citations; H-index=52
 - 23 granted patents
 - 1 book and 8 book chapters
 - 121 invited talks in conferences and academic institutions
- Research Grants at The University of Akron (UA, since 2011)
 - Funding: >\$2.5 M
 - Gift: Value of \$500,000 equipment from Canada and China
- Teaching at UA
 - Development of three new courses for graduate students
 - Taught one course for undergraduate students in Mechanical Department
 - Teaching evaluation rates rank top 1 in the college for last 5 years

AWARDS AND HONORS

- 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)
- Key International Collaboration Project Award, NSF of China (NSFC) (2013)
- 3M Non-tenured Faculty Award (2011)
- The University of Akron, Summer Research Award (2011)
- Overseas Outstanding Chinese Young Scientist Awards, NSFC (2008)
- K. C. Wong Education Foundation Fellow (2009)
- Alexander von Humboldt Research Fellowship (1999)

EMPLOYMENT

- **Assistant Professor** August 2010 – August 2014
Department of Polymer Engineering, College of Polymer Science and Polymer Engineering, The University of Akron, Akron, OH, USA
- **Associate Professor** August 2014 - present
Department of Polymer Engineering, College of Polymer Science and Polymer Engineering, The University of Akron, Akron, OH, USA
- **Senior Research Scientist** January 2005 - August 2010

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

- **Manager and Senior Scientist** January 2004 - August 2010
CBrite, Inc. Goleta, CA, USA
- **Adjunct Chair Professor** July 2007 - Present
State Key Laboratory of Luminescent Materials and Device, South China University of Technology, Guangzhou, Guangdong, P. R. China

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 Project Assistant** April 2001 - December 2003
Center for Polymers and Organic Solids, University of California, Santa Barbara, with Professor Alan J. Heeger (2000 Noble Laureate)

RESEARCH INTERESTS AND EXPERTISE

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

GRANTS

1. Past Grants

- (1) **Mitsubishi Chemical Corporation** Aug. 2001 - Aug. 2006
Title: High performance electrophosphorescent polymer light-emitting diodes
Award Amount: \$1,500,000
Role: Project Assistant (PI: Prof. A. J. Heeger)
- (2) **DARPA** July 2007 - Aug. 2010
Title: Hemispherical Array Detector for Imaging (**HARDI**)
Award Amount: \$22,500,000

- Role: Project manager (PI: Prof. A. J. Heeger)
- (3) **The University of Akron** Aug. 2010 - July 2014
Title: Organic electronics
Award amount: \$500,000
Role: PI
- (4) **The University of Akron** July 2012 - Aug. 2012
Title: POSS-Polymer for flexible electronics
Award Amount: \$10,000
Role: PI
- (5) **DOE** Sept. 2012 – Aug. 2014
Title: In-situ Neutron Scattering Determination of 3D Phase-Morphology Correlations in Fullerene-Block Copolymer Systems Block Copolymer System
Award Amount: \$831,066
Role: Co-PI
- (6) **3M Company** July 2011 - June 2014
Title: Polymer electronics
Award Amount: \$45,000
Role: PI

2. Current Grants

- (1) **NSF**
Title: Ultrasensitive Solution-Process Inverted Polymer Photodetectors
Award Amount: \$408,000
Role: PI
Period: July 2014 - June 2019
- (2) **1-Materil Inc.**
Title: Novel Polymers: Characterization and Applications
Award Amount: \$250,000
Role: PI
Period: July 2014 - June 2018
- (3) **BringSpring Science and Technology**
Title: High Performance Inverted Polymer Solar Cells
Award Amount: \$600,000
Role: PI
Period: Dec. 2013 – Dec. 2017
- (4) **NSF of China (key international collaboration project)**
Title: High performance inverted polymer solar cells
Award Amount: RMB 3,000,000
Role: PI
Period: Dec. 2014 – Dec. 2018
- (5) **Air Force Research**
Title: Uncooled broadband solution-processed photodetectors
Total Award Amount: \$819,543
Role: PI
Period: Sept. 2015 – Aug. 2018
- (6) **OH I-Corp**

Title: Solution-processed polymer infrared photodetectors
Award Amount: \$15,000
Role: PI
Period: July 2015 - June 2016

3. Pending Proposals

- (1) Title: Efficient Bulk Heterojunction Perovskite Hybrid Solar Cells via Novel Perovskite Materials
Source: NSF
Role: PI
Total Award Amount: \$386,363
Total Award Covered: 05/01/2016-04/31/2018
- (2) Title: Novel “Chromophore-Fullerene” Conjugated Molecules for Organic Photovoltaics
Source: NSF
Role: PI
Total Award Amount: \$340,965
Total Award Covered: 06/01/2016-05/31/2018
- (3) 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
- (4) Title: MURI: Physics, Chemistry and Mechanics of Polymer Dielectric Breakdown
Source: NSF
Role: Co-PI
Total Award Amount: \$5,429,910
Total Award Covered: 08/01/2017-05/31/2021
- (5) Title: Upconversion nanoparticles in solar cells
Source: Air Force Research
Role: Co-PI
Total Award Amount: \$529,610
Total Award Covered: 08/01/2017-05/31/2021
- (6) Title: The Ohio Soft Matter MRSEC
Source: NSF
Role: Co-PI
Total Award Amount: \$4,529,410
Total Award Covered: 08/01/2017-05/31/2021

PUBLICATIONS

2016

167. 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.
166. 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, Ahead of Print.
165. Y. P. Huang, W.Z. Xu, C. Zhou, Cheng; W. K. Zhong, R. B. Xie, **X. Gong**, L. Ying, F. Huang, Y Cao, Yong
Synthesis of medium-bandgap π -Conjugated polymers based on isomers of 5-Alkylphenanthridin-6(5H)-one and 6-Alkoxyphenanthridine
J. Polymer Science, Part A: Polymer Chemistry, 2016, 54, 2119-2127.
164. 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.
163. Kai Wang, Chang Liu, Tianyu Meng, Chao Yi, **Xiong Gong***
Inverted Organic Photovoltaic Cells
Chem. Soc. Rev., 2016, 45, 2937-2975.
162. 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.
161. 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.
160. 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.
159. Tianyu Meng, Chang Liu, Kai Wang, Tianda He, Yu Zhu, Abdullah Al-Enizi, Ahmend Elzatahry, **Xiong Gong***
High Performance Perovskite Hybrid Solar Cells with E-beam-Processed TiO_x Electron Extraction Layer
ACS Applied Materials & Interfaces, 2016, 8(3), 1876-1883.
158. 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**, in press.

157. Chao Yi, Xiaowen Hu, **Xiong Gong***
Interfacial Engineering for High Performance Organic Photovoltaics
Materials Today, **2016**, 19, 169-177.
156. Chang Liu, Kai Wang, **Xiong Gong*** and Alan J. Heeger
Low Bandgap Polymers for Polymeric Photovoltaics
Chem. Soc. Rev., **2016**, 45, 4825-4846

2015

155. 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.
154. 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.
153. 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.
152. 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.
151. M. Z. Zhang, R. D. Hu, H. Chen, **X. Gong**, F. M. Zhang J. Zheng
Polymorphic Associations and Structures of the Cross-Seeding of A β 1-42 and hIAPP1-37 Polypeptides
Journal of Chemical Information and Modeling, **2015**, 55(8), 1628-1639.
150. Chang Liu, Kai Wang, Pengcheng Du, Enming Wang and **Xiong Gong***
Ultrasensitive Solution-Processed Near-Infrared Photodetectors using CH₃NH₃PbI₃ and PbS Quantum Dots as the Light Harvesters
Nanoscale, **2015**, 7, 16460 - 16469.
149. 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.
148. 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.
147. 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.
146. 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.
145. 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)
144. 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
143. 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.
142. 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.
141. 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.
140. 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.
139. M. Z. Zhang, R. D. Hu, H. Chen, Y. Chang, **X. Gong**, F. F. Liu and J. Zheng
Interfacial interaction and lateral association of cross-seeding assemblies between hIAPP and rIAPP oligomers
Phys. Chem. Chem. Phys., **2015**, 17, 10373-10382.
138. Kai Wang, Chang Liu, Pengcheng Du, Jie Zheng and **Xiong Gong***
Bulk Heterojunction Perovskite Hybrid Solar Cells with Large Fill-Factor
Energy & Environ. Sci., **2015**, 8(4), 1245-1255.
137. 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 $\text{CH}_3\text{NH}_3\text{PbI}_{3-x}\text{Cl}_x$ Layer
Organic Electronics, **2015**, 21, 19-26.
136. 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.
135. Chang Liu, Kai Wang, Pengcheng Du, Tianyu Meng Xinfai Yu, Stephen Z. D. Cheng and **Xiong Gong***
High Performance Planar Heterojunction Perovskite Solar Cells with Fullerene Derivatives as the Electron Transport Layer

ACS Applied Materials & Interfaces, **2015**, **7**, 1153-1159.

134. 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.

2014

133. 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.
132. 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.
131. 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.
130. 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
129. 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.
128. 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.
127. 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.
126. 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.
125. 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.
124. 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.
123. 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.
121. 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
Journal of Materials Chemistry A: Materials for Energy and Sustainability, **2014**, 2(2), 321-325.
120. 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 endgroups for organic solar cells
Dyes and Pigments, **2014**, 101, 51-57.

2013

119. 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.
118. 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.
117. **Xiong Gong***
Towards High Performance Inverted Polymer Solar Cells through Interfacial Reengineering
SPIE, **2013**, 8830, 88300G1-88300G16.
116. Kai Wang, He Ren, Hangxing Wang, Chao Yi, Li Huang, Haoli Zhang, Alamgir Karim, and **Xiong Gong***
Solution-Processed Fe₃O₄ 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.
115. C. Zhao, X. Li, L. Li, **X. Gong**, Y. Chang, and J. Zheng
Mimicking the binding and unbinding of Fe³⁺ with transferrin using a single biomimetic nanochannel
Chem. Comm., **2013**, 49: 9317-9319.
114. 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.
113. 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.
112. 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.
111. 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.
110. 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.
109. C. Yi, **X. Gong***
Towards high performance inverted polymer solar cells
Current Opinion in Chemical Engineering, **2013**, 2, 125.
108. 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.
107. 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. Mater. Chem. A: Materials for Energy and Sustainability, **2013**, 1(10), 3387.
106. 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.

2012

105. 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.
104. 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.
103. 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 129₄₄ helix in a columnar porphyrin-C₆₀ dyad and the implication in polymer solar cells
Adv. Eng. Mater., **2012**, 2, 1375.
100. **X. Gong***

- Towards high performance inverted polymer solar cells
Polymer (Feature Articles), **2012**, 53, 5437.
99. 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.
98. 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.
97. 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.
96. 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.
95. 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
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105. "Uncooled ultrasensitive solution-processed broad-band photodetectors" Air Force Research Lab., Wright-Patterson, Jan. 25, 2016, Dayton, OH, USA.
104. "Printable flexible polymer electronics" Nanjing Normal University, Nanjing, Oct., 2015, P. R. China.
103. "High-performance polymer solar cells via novel materials and device engineering" Nanjing Normal University, Nanjing, Oct., 2015, P. R. China.
102. "Solution-processed perovskite hybrid solar cells?" Zhejiang University, Hangzhou, Oct., 2015, P. R. China.
101. "15 % efficiency from single junction polymer solar cells, POSSIBILITY?" 2015 China Polymer Conference, Suzhou, Oct., 2015, P. R. China.
100. "Magnetic effects on polymer solar cells", 10th International Chinese Organic Electronics,

- Aug. 7th to 10th, Beijing, P. R. China.
99. "Possibility to observe 15% efficiency form single junction polymer solar cells", Beijing University and Technology, Aug. 6th, Beijing, P. R. China.
 98. "Solution-processed perovskite hybrid solar cells" Ningbo Institute of Materials Science, CAS, Ningbo, P. R. China, June 29, 2015.
 97. "Magnetic effect on polymer solar cells" 13th International Conference of Polymer for Advanced Technology, Hangzhou, P. R. China, June 27, 2015.
 96. "Approaching 15% Efficiency Polymer Solar Cells" Hangzhou University, P. R. China, Hangzhou, June 26, 2015.
 96. "Perovskite hybrid solar cells" Northwest Normal University, Lanzhou, P. R. China, June 15 2015.
 96. "Perovskite hybrid solar cells" Northwest Normal University, Lanzhou, P. R. China, June 6 2015.
 95. "Polymer electronics" Hexi University, Zhangye, P. R. China, June 18, 2015.
 94. "Solution-processed high performance polymer solar cells" Northwest Normal University, Lanzhou, P. R. China, June 5, 2015.
 93. "Printable flexible polymer electronics" Lanzhou University, Lanzhou, P. R. China, June 16, 2015.
 92. "Polymer solar cells by novel materials" Lanzhou University, Lanzhou, P. R. China, June 2, 2015.
 91. "Little Science of Plastics" Hudson Elementary School, Feb. 17, 2015, Hudson, OH, USA
 90. "High efficiency of planar heterojunction perovskite solar cells by fine-tuning crystallization morphology" MRS Fall Conferences, Nov. 30th, 2014, Boston, MA, USA.
 89. "High performance solution-processed polymer solar cells via novel materials and interfacial engineering" The Akron Polymer Conferences, Akron, OH, Oct. 2-3, 2014.
 88. "Towards 15% Efficiency Polymer Solar Cells" The First International Symposium on the Science of Plastic Electronics, Beijing, P. R. China, Sept. 25, 2014.
 87. "Polymer electronics" Nanjing Chemical Company, Nanjing, P. R. China, Sept. 23, 2014
 86. "High performance polymer solar cells via novel materials" Suzhou Nanoinstitute, CAS, Suzhou, P. R. China, Sept. 22, 2014.
 85. "High performance polymer solar cells via interfacial engineering" Suzhou University, Suzhou, P. R. China, Sept. 22, 2014.
 84. "Inverted polymer solar cells via novel materials" Nanjing University, Nanjing, P. R. China, Sept. 21, 2014.
 83. "Printable Polymer Electronics", Dutong University, Datong, P. R. China, Sept. 17, 2014.
 82. "High performance solution-processed polymer solar cells" First Ohio Conference on the sustainable use of greenhouse gases, Columbus, OH, Aug. 18, 2014.
 81. "Polymer solar cells with over 1 μm thickness active layer" Chinese Chemistry Annual Congress, Beijing, Aug. 5th, 2014.
 80. "2D conjugated polymers for polymer solar cells with over 10% efficiency" Chinese Chemistry Annual Congress, Beijing, Aug. 4th, 2014.
 79. "Over 10% efficiency from single junction polymer solar cells", 6th International symposium on polymer materials science, Akron, OH, July 28, 2014.
 78. "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.
76. "High performance polymer solar cells via device engineering", Nankai University, Tianjin, China, June 18, 2014.
 75. "High performance polymer solar cells via novel materials", Tianjin University, Tianjin, China, June 17, 2014.
 74. "Polymer electronics", Lanzhou City University, Lanzhou, China, June 10, 2014.
 73. "Inorganic Chemist meets with Polymer Scientist", Northwest Normal University, Lanzhou, China, June 9, 2014.
 72. "Interfacial engineering for high performance polymer solar cells", Lanzhou University, Lanzhou, China, June 12, 2014.
 71. "Inverted infrared polymer photodetectors", Lanzhou Institute of Chemical Physics, CAS, Lanzhou, China, June 13, 2014.
 70. "High performance single junction polymer solar cells by 2D conjugated polymers", International conference on polymer chemistry, Shanghai, P. R. China, June 4, 2014.
 69. "Interfacial engineering for high performance inverted polymer solar cells", ACS Dallas Meeting, March 17, 2014
 68. "High performance polymer solar cells through device design and novel materials", Tsinghua University, Nov. 20th, 2013, Beijing, China
 67. "Polymer Solar Cells: Device and Materials", Norfolk State University, Sept. 27th, 2013, Norfolk, VA, USA.
 66. "Novel "electron donor-fullerene" conjugated molecules for polymer solar cells with an inverted device structure", 246 ACS conference, Sept. 12, 2013, Indianapolis, IN, USA
 65. "Towards high performance solar cells" South China University and Technology, June, 2013, Guangzhou, China.
 64. "Polymer solar cells by novel conjugated fullerene molecules", Oka Ridge National Laboratory users' workshop, Aug. 12-15th, 2013, Oak Ridge, TN, USA
 63. "Over 10 % efficiency polymer solar cells", University of Tennessee, Aug. 15th, 2013, Knoxville, TN, USA.
 62. "Towards high performance inverted polymer solar cells through interfacial engineering", SPIE, Aug. 2013, San Diego, CA, USA.
 60. "Hybrid infrared polymer photodetectors", Lanzhou University, Jul. 2013, Lanzhou, China
 59. "Solution-processed high performance polymer solar cells: device structures and materials", Lanzhou Institute of Chemical Physics, CAS, Jul. 2013, Lanzhou, China
 58. "Renewable energy", Invited by Government of Dunhuang City, Gansu Province, July 2013, Dunhuang, China
 57. "How to approach high performance organic solar cells", National Science Foundation of China, Jul. 2013, Beijing, China
 56. "Inverted infrared polymer photodetectors", International workshop on organic electronics, Jun. 2013, Beijing, China
 55. "Science of Plastics", Evamere Elementary School, May, 2013, Hudson, OH, USA
 54. "High performance inverted polymer solar cells", Department of Chemical Engineering, University of Akron, April 2013, Akron, OH, USA
 53. "High performance inverted polymer solar cells", MRS Spring meeting, Apr. 2013, SFO, CA, USA
 52. "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
51. "Towards high performance solar cells", APS March conference, Mar. 2013, Baltimore, Maryland, USA
 50. "Solution-processed polymer electronics", Research for Lunch, Research office of University of Akron, Feb. 2013, Akron, OH, USA
 49. "Towards high performance polymer photovoltaic cells", Lanzhou University, Dec. 2012, Lanzhou, China
 48. "Inverted polymer solar cells", Northwest Normal University, Dec. 2012, Lanzhou, China
 47. "Interface engineering for high performance polymer solar cells", Nov. 2012, MRS Fall meeting, Boston, MA
 46. "High performance polymer solar cells by novel materials", University of California Santa Barbara, Oct. 30th, 2012, CA, USA
 45. "High performance solution-processed polymer solar cells", University of Pittsburgh, Oct. 2012, PA, USA
 44. "Solution-processed organic photovoltaic cells", Case Western Reserve University, Sept. 2012, Cleveland, OH, USA
 43. "High performance inverted polymer solar cells", NSF and ONR workshop, Sept. 2012, DC, USA
 42. "Inverted polymer solar cells", Institute of Chemistry, CAS, July 4, 2012, Beijing, China
 41. "Towards high performance inverted polymer solar cells", IUPAC Polymer Congress, June 2012, USA
 40. "Polymer solar cells" June 2012, Polymer Conferences, Akron, OH
 39. "Flexible electronics", Plastic Society of Akron and Cleveland, Apr. 2012, Akron, OH
 38. "Organic electronics", Akron Polymer Society, Nov. 2011, Akron, OH, USA
 37. "Polymer solar cells with an inverted device structure", MRS meeting, Nov. 2011, Boston, USA
 36. "Polymer solar cells with an inverted device structure", International Chinese Organic Electronics, Oct. 2011, Zhang Jiajie, China
 35. "Solution-processed polymer photodetectors", Akron Advanced Materials, Sept. 2011, Akron, OH, USA
 34. "Solution processed infrared polymer photodetector", SPIE conference, Aug. 2011, San Diego, CA, USA
 33. "Ultrasensitive polymer photodetectors", South China University of Science and Technology, Jun. 2011, Guangzhou, China
 32. "Printable polymer electronics", Lanzhou University, Jun. 2011, Lanzhou, China
 31. "Polymer solar cells by novel electron acceptor", Polymer Congress, May, 2011, Beijing, China
 30. "Infrared polymer photodetector", Peking University, May. 2011, Beijing, China
 29. "Polymer solar cells with an inverted device structure", Beijing University Chemical Technology, May 2011, Beijing, China
 28. "Solution-processed Organic Electronics", Dec. 2010, Cleveland, OH, USA
 27. "Infrared polymer photodetector", SPIE conference, Aug. 2010, San Diego, CA, USA
 26. "Solution-processed organic photodetectors", Xi An 3rd International Organic Electronics, June 2010, Xian, China
 25. "Polymer solar cells", Northwest Normal University, June 2010, Lanzhou, China

24. "Solution-processed organic photodetectors", Lanzhou University, Jun. 2010, Lanzhou, China
23. "Solution-processed organic photodetectors", South China University of Science and Technology, June 2010, Guanzhou, China
22. "Polymer photodetector", MRS Spring Meeting, SFO, April 2010, CA, USA
21. "Polymer solar cells with larger open-circuit voltage", MRS Spring Meeting, SFO, April 2010, CA, USA
20. "Ultrasensitive polymer photodetectors", UCSB Organic Electronics Workshop, Sept. 2009, Santa Barbara, CA, USA
19. "Polymer photodetector", SPIE, Aug. 2009, San Diego, CA, USA
18. "Solution-processed ultrasensitive polymer photodetectors", PS, Mar. 2009, Pittsburgh, PA, USA
17. "Polymer photodetectors", US-Japan Polymat, Aug. 2008, Ventura, CA, USA
16. "Semiconducting polymers and its applications", Lanzhou City University, Oct. 2007, Lanzhou, China
15. "Organic/polymer optoelectronic devices", Lanzhou University, Sept. 2007, Lanzhou, China
14. "Polymer electronic and optoelectronic devices", Northwest Normal University, Sept. 2007, Lanzhou, China
13. "Polymer solar cells", South China University of Science and Technology, June 2007, Guanzhou, China
12. "Fluorenone defects in polyfluorens", Workshop on Organic/Polymer Devices, May, 2007, Montreal, Canada
11. "Materials and devices of PLEDs and polymer Solar Cells", Peking University, Sept. 2006, Beijing, China
10. "Semiconducting polymers and polymer optoelectronic devices", Lanzhou Jiaotong University, Sept. 2006, Lanzhou, China
2. "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
8. "Plastic electronics", Institute of Chemistry, Chinese Academy of Science, Aug. 2006, Beijing, China
"Recently progress on PLEDs and solar cells at UCSB", International Conference on Organic/Polymer Devices, Jul. 2006, Changchun, China
6. "Multilayer white PLEDs", SPIE Conference, 2006, San Diego, CA, USA
5. "White PLEDs", SPIE Conference, 2005, Denver, CO, USA
4. "Polymer electrophosphorescent LEDs", SPIE Conference, Aug. 2004, San Diego, CA, USA
3. "White light PLEDs", ICSM, 2004, Australia
2. "Stabilized blue emission from PLEDs made by polyfluorenes", APS meeting, Mar. 2003, Austin, TX, USA
1. "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:

- 4 post-docs, 12 Ph. D. students and 19 M. Sc. students, 3 undergraduate students, 2 high-school students
 - 7 Ph. D. and 17 M Sc students graduated in 2013, 2014, 2015 and 2016
- (2) Teaching
- Semiconducting Polymers (graduate course, evaluation rating: 2010, 4.67/5; 2012, 4.80/5; 2015, 4.80/5)
 - Flexible Electronics (graduate course, evaluation rating: 2011, 4.92/5, 2016, 4.90/5)
 - Polymer Science for Engineers (2012, undergraduate course, evaluation rating: 4.38/5)
 - Electrical Properties of Materials (2013, 4.76/5)
2. 2007~present State Key Laboratory of Luminescence Materials and Devices, South China University of Technology, P. R. China
- (1) Mentoring/supervising:
- 8 Ph. D. students and 6 M.Sc. students
 - 6 Ph.D. students and 3 M. Sc. students graduated

SERVICES

- Committees (Admissions, Faculty Search (3), Library, Dean Search, University Research, etc.)
- Review Panel (Air Force, NSF, Canada, Swiss NSF, Hong Kong, China NSF, Iowa State)
- 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)