WEI YOU

Department of Chemistry
University of North Carolina
Kenan Lab C540

Tel: (919) 962-6197
Fax: (919) 962-2388
E-mail: wyou@unc.edu

Chapel Hill, NC 27599

1. EDUCATION

University of Chicago Organic/Polymer Chemistry Ph.D. 2004
University of Science and Technology of China Chemistry B.S.1999

2. PROFESSIONAL EXPERIENCE

2017-present	Professor of Chemistry, University of North Carolina, Chapel Hill, NC
2017-present	Editorial Advisory Board, ACS Applied Energy Materials (American Chemical
	Society),
2017-present	Editorial Advisory Board, <i>Macromolecules</i> (American Chemical Society)
2013-present	Associate Editor, Polymer Chemistry (Royal Society of Chemistry)
2012-2017	Associate Professor of Chemistry, University of North Carolina, Chapel Hill, NC
2006-2012	Assistant Professor of Chemistry, University of North Carolina, Chapel Hill, NC
2004-2006	Postdoctoral Fellow, Dept. of Chem. Eng., Stanford University, Stanford, CA
1999-2004	Graduate Assistant, Department of Chemistry, University of Chicago, Chicago, IL

3. HONORS and MEMBERSHIPS

Honors and Awards

2019	"World Highly Cited Researchers" by Web of Science Group
2019	Nano Research Young Innovator Award in Nanoenergy, Springer
2017	Fellow of Royal Society of Chemistry (FRSC)
2013	Ruth and Phillip Hettleman Prize for Artistic and Scholarly Achievement
2013	One publication was selected as one of the top 9 articles out of 1300+ for "Best of Macromolecular Journals 2012" by Wiley
2012	Two publications were in "the hottest research of 2011" by Thomas Reuters
2012	CAPA Distinguished Junior Faculty Award
2012	Camille Dreyfus Teacher-Scholar Award
2011	Tanner Award for Excellence in Undergraduate Teaching
2010-2015	NSF CAREER Award
2008-2009	R.J. Reynolds Junior Faculty Development Award
2008-2010	DuPont Young Professor Award
2007-2008	DuPont Science and Engineering Grant
2004	"Excellence in Graduate Polymer Research", American Chemical Society 228th
	National Meeting
2002	"Outstanding Leadership and Dedication", recognized by Consulate General of
	the People's Republic of China in Chicago
1999	"Excellent Thesis of USTC (Year 1999)" from University of Science and
	Technology of China, Hefei, Anhui, P. R. China
1998	"Excellent Student Fellowship (Third Prize)" from University of Science and
	Technology of China, Hefei, Anhui, P. R. China
1997	"P&G Scholarship" from University of Science and Technology of China, Hefei,
	Anhui, P. R. China
1996	"Panasonic Scholarship" from University of Science and Technology of China, Hefei, Anhui, P. R. China

1995 "Excellent Student Fellowship (First Prize)" from University of Science and Technology of China, Hefei, Anhui, P. R. China

Professional Affiliations

American Chemical Society Materials Research Society

4. PUBLICATIONS

a. Book Chapters

- (5) "Design and Synthesis of Conjugated Polymers for Solar Cells." Mary Allison Kelly, Qianqian Zhang, Nicole Bauer and **Wei You***, in "World Scientific Handbook of Organic Optoelectronic Devices," **2018**, World Scientific.
- (4) "Molecular Design of Conjugated Polymers for High-Efficiency Solar Cells." Liqiang Yang, Huaxing Zhou, Andrew C. Stuart, and Wei You*, in "Organic Photovoltaics: Materials, Device Physics, and Manufacturing Technologies, Second Edition", 2014, Wiley-VCH Verlag GmbH & Co. KGaA.
- (3) "Donor-Acceptor Alternating Copolymers." Wentao Li, and **Wei You***, in "*Conjugated Polymers: A Practical Guide to Synthesis*", **2013**, RSC Polymer Chemistry Series No. 9.
- "Conjugated polymers based on benzo[1,2-*b*:4,5-*b*]dithiophene for organic electronics." Huaxing Zhou, and **Wei You***, in "High Performance Polymers and Engineering Plastics", **2011**, Scrivener & Wiley (invited review).
- (1) "Recent Progress on Highly Efficient Bulk Heterojunction Polymer Solar Cells." Shengqiang Xiao, Samuel C. Price, Huaxing Zhou, and **Wei You***. *ACS Symp. Ser.* **2010**, *1034*, 71 (invited review).

b. Refereed Papers (citations: >14,000, H index: 51)

Google scholar: https://scholar.google.com/citations?user=0 z zNcAAAAJ&hl=en ORCID: https://orcid.org/0000-0003-0354-1948

Independent Research (as PI at UNC-CH)

- (140) "Imaging Excited State Dynamics in Layered 2D Perovskites with Transient Absorption Microscopy." Olivia F Williams, Ninghao Zhou, Jun Hu, Zhenyu Ouyang, Amar Kumbhar, Wei You, Andrew M Moran.* J. Phys. Chem. A 2019 ASAP (DOI: 10.1021/acs.jpca.9b08852)
- (139) "Nonlinear Photocurrent Spectroscopy of Layered 2D Perovskite Quantum Wells." Ninghao Zhou, Jun Hu, Zhenyu Ouyang, Olivia F. Williams, Liang Yan, **Wei You**, Andrew M. Moran* *J. Phys. Chem. Lett.* **2019**, *10*, 7362-7367. (DOI: 10.1021/acs.jpclett.9b02959)
- (138) "Enhancing Photovoltaic Performance of Aromatic Ammonium based Two Dimensional Organic - Inorganic Hybrid Perovskites via Tuning CH···π Interaction" Liang Yan, Jun Hu, Ninghao Zhou, Andrew M Moran, Wei You.* Solar RRL, 2019, ASAP (DOI: 10.1002/solr.201900374)

- (137) "Effect of Cyano Substitution on Conjugated Polymers for Bulk Heterojunction Solar Cells." Qianqian Zhang, Jeromy James Rech, Liang Yan, Quanbin Liang, Zhengxing Peng, Harald Ade, Hongbin Wu, Wei You.* ACS Appl. Polym. Mater. 2019, 1, 3313-3322. (DOI: 10.1021/acsapm.9b00767)
- (136) "Resolving rotational stacking disorder and electronic level alignment in a 2D oligothiophene-based lead iodide perovskite." Manoj K Jana, Chi Liu, Sven Lidin, David J Dirkes, Wei You, Volker Blum, David B Mitzi.* Chem. Mater. 2019, 31, 8523-8532. (DOI: 10.1021/acs.chemmater.9b03208)
- (135) "Tunable internal quantum well alignment in rationally designed oligomer-based perovskite films deposited by resonant infrared matrix-assisted pulsed laser evaporation." Wiley Dunlap-Shohl, E Tomas Barraza, Andrew Barrette, Seyitliyev Dovletgeldi, Gamze Findik, David Dirkes, Chi Liu, Manoj K Jana, Volker Blum, Wei You, Kenan Gundogdu, Adrienne Stiff-Roberts, David B Mitzi.* Mater. Horiz. 2019, 6, 1707-1716 (DOI: 10.1039/C9MH00366E)
- "Utilizing Difluorinated Thiophene Units To Improve the Performance of Polymer Solar Cells." Jeromy J Rech, Liang Yan, Zhengxing Peng, Shuixing Dai, Xiaowei Zhan, Harald Ade, and **Wei You***. *Macromolecules* **2019**, *52*, 6523-6532. (DOI: 10.1021/acs.macromol.9b01168)
- (133). "The impact of fluorination on both donor polymer and non-fullerene acceptor: The more fluorine, the merrier." Nicole Bauer, Qianqian Zhang, Jeromy James Rech, Shuixing Dai, Zhengxing Peng, Harald Ade, Jiayu Wang, Xiaowei Zhan, and **Wei You***. *Nano Research* **2019**, *12*, 2400-2405. (DOI: 10.1007/s12274-019-2362-3)
- (132) "The Importance of Entanglements in Optimizing the Mechanical and Electrical Performance of All-polymer Solar Cells." Nrup Balar, Jeromy James Rech, Reece Henry, Long Ye, Harald Ade, **Wei You**, and Brendan T. O'Connor*. *Chem. Mater.* **2019**, *31*, 5124-5132. (DOI: 10.1021/acs.chemmater.9b01011)
- (131) "Aryl-Perfluoroaryl Interaction in Two-Dimensional Organic-Inorganic Hybrid Perovskites Boosts Stability and Photovoltaic Efficiency." Jun Hu, Iain WH Oswald, Huamin Hu, Samuel J Stuard, Masrur Morshed Nahid, Liang Yan, Zheng Chen, Harald Ade, James R Neilson, and **Wei You***. ACS Materials Lett. **2019**, *1*, 171-176. (DOI: 10.1021/acsmaterialslett.9b00102)
- (130) "The Recombination between Photogenerated and Electrode-Induced Charges Dominates the Fill Factor Losses in Optimized Organic Solar Cells." Uli Würfel, Lorena Perdigón Toro, Jona Kurpiers, Christian M Wolff, Pietro Caprioglio, Jeromy James Rech, Jingshuai Zhur, Xiaowei Zhan, **Wei You**, Safa Shoaee, Dieter Neher, Martin Stolterfoht*. *J. Phys. Chem. Lett.* **2019**, *10*, 3473–3480. (DOI: 10.1021/acs.jpclett.9b01175)
- (129) "A Direct-Bandgap 2D Silver-Bismuth Iodide Double Perovskite: The Structure-Directing Influence of an Oligothiophene Spacer Cation." Manoj K Jana, Svenja M Janke, David J Dirkes, Seyitliyev Dovletgeldi, Chi Liu, Xixi Qin, Kenan Gundogdu, **Wei You**, Volker Blum, and David B Mitzi*. *J. Am. Chem. Soc.* **2019**, *141*, 7955–7964. (DOI: 10.1021/jacs.9b02909)
- (128) "Alcohol mediated degenerate chain transfer controlled cationic polymerisation of para-

- alkoxystyrene." Alka Prasher, Huamin Hu, Joji Tanaka, David Nicewicz, and **Wei You*.** *Polym. Chem.*, **2019**, *10*, 4126-4133. (DOI: 10.1039/C9PY00480G)
- (127) "The crucial role of end group planarity for fused-ring electron acceptors in organic solar cells." Jeromy Rech, Nicole Bauer, David Dirkes, Joseph Kaplan, Zhengxing Peng, Huotian Zhang, Long Ye, Shubin Liu, Feng Gao, Harald Ade, and Wei You*. Mater. Chem. Front. 2019, 3, 1642-1652. (DOI: 10.1039/C9QM00314B)
- (126) "Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells." Masoud Ghasemi, Huawei Hu, Zhengxing Peng, Jeromy James Rech, Indunil Angunawela, Joshua H Carpenter, Samuel J Stuard, Andrew Wadsworth, Iain McCulloch, Wei You, Harald Ade*. Joule, 2019 3, 1328-1348. (DOI:10.1016/j.joule.2019.03.020)
- (125) "Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites." Jun Hu, Iain WH Oswald, Samuel J Stuard, Masrur Morshed Nahid, Ninghao Zhou, Olivia F Williams, Zhenkun Guo, Liang Yan, Huamin Hu, Zheng Chen, Xun Xiao, Yun Lin, Zhibin Yang, Jinsong Huang, Andrew M Moran, Harald Ade, James R Neilson, Wei You*, Nature Communications 2019, 10, 1276 (DOI: 10.1038/s41467-019-08980-x)
- (124) "Enhanced Charge Transport in 2D Perovskite via Fluorination of Organic Cation." Fei Zhang, Dong Hoe Kim, Haipeng Lu, Ji-Sang Park, Bryon Larson, Jun Hu, Liguo Gao, Chuanxiao Xiao, Obadiah Reid, Xihan Chen, Qian Zhao, Paul F Ndione, Joseph J Berry, Wei You, Aron Walsh, Matthew C Beard, Kai Zhu.* J. Am. Chem. Soc., 2019, 141, 5972–5979. (DOI: 10.1021/jacs.9b00972)
- (123) "Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Two Donor Polymer Blend." Huawei Hu, Long Ye, Masoud Ghasemi, Nrup Balar, Jeromy James Rech, Samuel J Stuard, Wei You, Brendan T O'Connor, Harald Ade.* Adv. Mater. 2019, 31, 1808279. (DOI:10.1002/adma.201808279)
- (122) "Sequential Deposition of Organic Films with Eco Compatible Solvents Improves Performance and Enables Over 12% Efficiency Nonfullerene Solar Cells." Long Ye,* Yuan Xiong, Zheng Chen, Qianqian Zhang, Zhuping Fei, Reece Henry, Martin Heeney, Brendan T O'Connor, **Wei You,*** Harald Ade.* *Adv. Mater.* **2019**, *31*, 1808153. (DOI: 10.1002/adma.201808153)
- (121) "Green Solvent Processed Conjugated Polymers for Organic Solar Cells: The Impact of Oligoethylene Glycol Side Chains." Zheng Chen,* Liang Yan, Jeromy James Rech, Jun Hu, Qianqian Zhang, Wei You.* ACS Appl. Polym. Mater., 2019, 1, 804–814. (DOI: 10.1021/acsapm.9b00044)
- (120) "Competition between Exceptionally Long Range Alkyl Sidechain Ordering and Backbone Ordering in Semiconducting Polymers and Its Impact on Electronic and Optoelectronic Properties." Joshua H Carpenter, Masoud Ghasemi, Eliot Gann, Indunil Angunawela, Samuel J Stuard, Jeromy James Rech, Earl Ritchie, Brendan T O'Connor, Joanna Atkin, **Wei You**, Dean M DeLongchamp, Harald Ade.* *Adv. Funct. Mater.* **2019**, 29, 1806977. (DOI: 10.1002/adfm.201806977)
- (119) "Panchromatic All Polymer Photodetector with Tunable Polarization Sensitivity." Pratik

- Sen, Ruonan Yang, Jeromy J Rech, Yuanxiang Feng, Carr Hoi Yi Ho, Jinsong Huang, Franky So, R Joseph Kline, **Wei You**, Michael W Kudenov, Brendan T O'Connor.* *Adv. Optical Mater.* **2018**, 1801346. (DOI: 10.1002/adom.201801346)
- (118) "Perfluorocarbon-based O 2 nanocarrier for efficient photodynamic therapy." Huamin Hu, Xuefeng Yan, Hui Wang, Joji Tanaka, Mengzhe Wang, **Wei You**,* Zibo Li.* *J. Mater. Chem. B*, **2019**, *7*, 1116-1123. (DOI: 10.1039/C8TB01844H)
- (117) "Pairing 1D/2D-conjugation donors/acceptors towards high-performance organic solar cells." Jiayu Wang, Yiqun Xiao, Wei Wang, Cenqi Yan, Jeromy Rech, Mingyu Zhang, Wei You, Xinhui Lu,* Xiaowei Zhan.* *Mater. Chem. Front.*, 2019, 3, 276-283. (DOI: 10.1039/C8QM00512E)
- (116) "Revealing the Impact of FTCNQ as Additive on Morphology and Performance of High Efficiency Nonfullerene Organic Solar Cells." Yuan Xiong, Long Ye,* Abay Gadisa, Qianqian Zhang, Jeromy James Rech, **Wei You**, Harald Ade.* *Adv. Funct. Mater.* **2019**, 29, 1806262 (10.1002/adfm.201806262)
- (115) "End-cap Group Engineering of a Small Molecule Non-Fullerene Acceptor: The Influence of Benzothiophene Dioxide." Hongda Cao, Nicole Bauer, Chao Pang, Jeromy Rech, Wei You, Paul A Rupar.* ACS Appl. Energy Mater., 2018, 1, 7146–7152. (DOI: 10.1021/acsaem.8b01576)
- (114) "Tunable Semiconductors: Control over Carrier States and Excitations in Layered Hybrid Organic-Inorganic Perovskites." Chi Liu, William Huhn, Ke-Zhao Du, Alvaro Vazquez-Mayagoitia, David Dirkes, Wei You, Yosuke Kanai, David B Mitzi, Volker Blum. Phys. Rev. Lett. 2018, 121, 146401 (DOI: 10.1103/PhysRevLett.121.146401)
- (113) "Shear-Enhanced Transfer Printing of Conducting Polymer Thin Films." Pratik Sen, Yuan Xiong, Qianqian Zhang, Sungjune Park, **Wei You**, Harald Ade, Michael W. Kudenov, and Brendan T. O'Connor.* *ACS Appl. Mater. Interfaces* **2018**, *10*, 31560–31567 (DOI: 10.1021/acsami.8b09968)
- "The finale of a trilogy: comparing terpolymers and ternary blends with structurally similar backbones for use in organic bulk heterojunction solar cells." Mary Allison Kelly, Qianqian Zhang, Zhengxing Peng, Victoria Noman, Chenhui Zhu, Harald Ade and **Wei You.*** *J. Mater. Chem. A*, **2018**, *6*, 19190–19200. (DOI: 10.1039/c8ta05132a)
- (111) "A Fused Ring Electron Acceptor with Decacyclic Core Enables over 13.5% Efficiency for Organic Solar Cells." Dan He, Fuwen Zhao,* Jingming Xin, Jeromy James Rech, Zhixiang Wei,* Wei Ma, **Wei You**, Bao Li, Li Jiang, Yongfang Li, and Chunru Wang.* *Adv. Energy Mater.* **2018**, 1802050. (DOI: 10.1002/aenm.201802050)
- (110) "General Post-annealing Method Enables High-Efficiency Two-Dimensional Perovskite Solar Cells." Liang Yan, Jun Hu, Zhenkun Guo, Hong Chen, Michael F. Toney, Andrew M. Moran,* and **Wei You.*** *ACS Appl. Mater. Interfaces* **2018**, *10*, 33187–33197. (DOI: 10.1021/acsami.8b10230)
- (109) "Two-Dimensional Organic–Inorganic Hybrid Perovskites: A New Platform for Optoelectronic Applications." Jun Hu, Liang Yan, and **Wei You.*** *Adv. Mater.* **2018**, 1802041. (DOI: 10.1002/adma.201802041)

- "Sensitivity of Molecular Packing and Photovoltaic Performance to Subtle Fluctuation of Steric Distortions within D-A Copolymer Backbones." Jianhong Gao, Wei Wang, Shubin Liu, Chun Zhan, Shengqiang Xiao,* Xinhui Lu,* and **Wei You.*** *ACS Appl. Energy Mater.* **2018**, *1*, 4332–4340. (DOI: 10.1021/acsaem.8b00948)
- (107) "Effect of Core Size on Performance of Fused-Ring Electron Acceptors." Shuixing Dai, Yiqun Xiao, Peiyao Xue, Jeromy James Rech, Kuan Liu, Zeyuan Li, Xinhui Lu, Wei You, and Xiaowei Zhan.* *Chem. Mater.*, **2018**, *30*, 5390–5396. (DOI: 10.1021/acs.chemmater.8b02222)
- (106) "Understanding the side-chain effects on A–D–A acceptors: in-plane and out-of-plane." Qishi Liu, Zuo Xiao, Ting Li, Shangfeng Yang,* Wei You,* Mingkui Wang* and Liming Ding.* *Mater. Chem. Front.*, **2018**, *2*, 1563. (DOI: 10.1039/c8qm00238j)
- (105) "Imaging Carrier Diffusion in Perovskites with a Diffractive Optic-Based Transient Absorption Microscope." Zhenkun Guo, Ninghao Zhou, Olivia F. Williams, Jun Hu, **Wei You**, and Andrew M. Moran.* *J. Phys. Chem. C*, **2018**, *122*, 10650–10656. (DOI: 10.1021/acs.jpcc.8b03643)
- (104) "Unique Energy Alignments of a Ternary Material System toward High-Performance Organic Photovoltaics." Pei Cheng, Jiayu Wang, Qianqian Zhang, Wenchao Huang, Jingshuai Zhu, Rui Wang, Sheng-Yung Chang, Pengyu Sun, Lei Meng, Hongxiang Zhao, Hao-Wen Cheng, Tianyi Huang, Yuqiang Liu, Chaochen Wang, Chenhui Zhu, Wei You, Xiaowei Zhan, and Yang Yang.* Adv. Mater. 2018, 30, 1801501. (DOI: 10.1002/adma.201801501)
- (103) "Measuring Temperature-Dependent Miscibility for Polymer Solar Cell Blends: An Easily Accessible Optical Method Reveals Complex Behavior." Zhengxing Peng, Xuechen Jiao, Long Ye, Sunsun Li, Jeromy James Rech, **Wei You**, Jianhui Hou, and Harald Ade.* *Chem. Mater.*, 2018, 30, 3943–3951. (DOI: 10.1021/acs.chemmater.8b00889)
- (102) "Post-polymerization modification of phosphorus containing conjugated copolymers." Hongda Cao, Nicole Bauer, Sheng Bi, Dawen Li, **Wei You**, and Paul A. Rupar.* *European Polymer Journal* **2018**, *104*, 157-163. (DOI: 10.1016/j.eurpolymj.2018.05.009)
- (101) "Morphology, Structure, and Enhanced Intramolecular Conduction in Ultralong Conjugated Polymer Brushes." Ian A. VonWald, Mark M. Moog, Travis W. LaJoie, Joshua D. Yablonski, Dean M. DeLongchamp, Jason Locklin, Frank Tsui,* and **Wei You.*** *J. Phys. Chem. C* **2018**, *122*, 7586–7596. (DOI: 10.1021/acs.jpcc.8b00033)
- (100) "Dramatic Improvement of the Mechanical Strength of Silane Modified Hydroxyapatite-Gelatin Composites via Processing with Cosolvent." Huamin Hu, Bo-Wen Huang, Yan-Ting Lee, Jun Hu, Sing-Wai Wong, Ching-Chang Ko,* and Wei You.* ACS Omega, 2018, 3, 3592–3598. (DOI: 10.1021/acsomega.7b01924)
- (99) "Energy transfer mechanisms in layered 2D perovskites." Olivia F. Williams, Zhenkun Guo, Jun Hu, Liang Yan, **Wei You**, and Andrew M. Moran.* *J. Chem. Phys.* **2018**, *148*, 134706. (DOI: 10.1063/1.5009663)
- (98) "A carbon–oxygen-bridged hexacyclic ladder-type building block for low-bandgap

- nonfullerene acceptors." Ting Li, Honghong Zhang, Zuo Xiao, Jeromy J. Rech, Helin Niu, **Wei You,*** and Liming Ding.* *Mater. Chem. Front.* **2018**, *2*, 700. (DOI: 10.1039/c8qm00004b)
- (97) "Balanced Partnership between Donor and Acceptor Components in Nonfullerene Organic Solar Cells with >12% Efficiency." Yuze Lin, Fuwen Zhao, Shyamal K. K. Prasad, Jing-De Chen, Wanzhu Cai, Qianqian Zhang, Kai Chen, Yang Wu, Wei Ma, Feng Gao, Jian-Xin Tang, Chunru Wang, **Wei You**, Justin M. Hodgkiss,* and Xiaowei Zhan.* *Adv. Mater.* **2018**, *30*, 1706363. (DOI: 10.1002/adma.201706363)
- (96) "Polymer Solar Cells with 90% External Quantum Efficiency Featuring an Ideal Lightand Charge-Manipulation Layer." Jing-De Chen, Yan-Qing Li, Jingshuai Zhu, Qianqian Zhang, Rui-Peng Xu, Chi Li, Yue-Xing Zhang, Jing-Sheng Huang, Xiaowei Zhan, **Wei You**, and Jian-Xin Tang.* *Adv. Mater.* **2018**, *30*, 1706083. (DOI: 10.1002/adma.201706083)
- (95) "Optical studies of native defects in π-conjugated donor–acceptor copolymers." Sangita Baniya, Dipak Khanal, Evan Lafalce, **Wei You**, and Z. Valy Vardeny. *Journal of Applied Physics* **2018**, *123*, 161571. (DOI:10.1063/1.5012995)
- (94) "Enhancing the performance of the electron acceptor ITIC-Th via tailoring its end groups." Zeyuan Li,Shuixing Dai, Jingming Xin, Lin Zhang, Yang Wu, Jeromy Rech, Fuwen Zhao, Tengfei Li, Kuan Liu, Qiao Liu, Wei Ma, **Wei You,** Chunru Wang and Xiaowei Zhan.* *Mater. Chem. Front.* **2018**, *2*, 537. (DOI: 10.1039/c7qm00547d)
- (93) "Effect of Replacing Alkyl Side Chains with Triethylene Glycols on Photovoltaic Properties of Easily Accessible Fluorene-Based Non-Fullerene Molecular Acceptors: Improve or Deteriorate?" Shoujie Zhang, Jianhong Gao, Wei Wang, Chun Zhan, Shengqiang Xiao,* Zhiqiang Shi, and **Wei You.*** ACS Appl. Energy Mater. **2018**, 1, 1276–1285. (DOI: 10.1021/acsaem.8b00012)
- (92) "Surpassing 10% Efficiency Benchmark for Nonfullerene Organic Solar Cells by Scalable Coating in Air from Single Nonhalogenated Solvent." Long Ye, Yuan Xiong, Qianqian Zhang, Sunsun Li, Cheng Wang, Zhang Jiang, Jianhui Hou, **Wei You**, and Harald Ade.* *Adv. Mater.* **2018**, *30*, 1705485. (DOI: 10.1002/adma.201705485)
- (91) "Enhancing the performance of a fused-ring electron acceptor via extending benzene to naphthalene." Jingshuai Zhu, Yang Wu, Jeromy Rech, Jiayu Wang, Kuan Liu, Tengfei Li, Yuze Lin,* Wei Ma, **Wei You** and Xiaowei Zhan.* *J. Mater. Chem. C*, **2018**, *6*, 66. (DOI: 10.1039/c7tc04520d)
- (90) "Distinction between PTB7-Th samples prepared from Pd(PPh3)4 and Pd2(dba)3/P(o-tol)3 catalysed stille coupling polymerization and the resultant photovoltaic performance." Jianhong Gao, Wei Wang, Shoujie Zhang, Shengqiang Xiao,* Chun Zhan, Mingyan Yang, Xinhui Lu* and **Wei You.*** *J. Mater. Chem. A*, **2018**, *6*, 179. (DOI: 10.1039/c7ta09464g)
- (89) "Naphthodithiophene-Based Nonfullerene Acceptor for High-Performance Organic Photovoltaics: Effect of Extended Conjugation." Jingshuai Zhu, Zhifan Ke, Qianqian Zhang, Jiayu Wang, Shuixing Dai, Yang Wu, Ye Xu, Yuze Lin,* Wei Ma, **Wei You**, and Xiaowei Zhan.* *Adv. Mater.* **2018**, 30, 1704713. (DOI: 10.1002/adma.201704713)

- (88) "Donor polymer fluorination doubles the efficiency in non-fullerene organic photovoltaics." Nicole Bauer, Qianqian Zhang, Jingshuai Zhu, Zhengxing Peng, Liang Yan, Chenhui Zhu, Harald Ade, Xiaowei Zhan and **Wei You.*** *J. Mater. Chem. A*, **2017**, 5, 22536. (DOI: 10.1039/c7ta07882j)
- (87) "Enhancing Efficiency and Stability of Organic Solar Cells by UV Absorbent." Meng Qin, Pei Cheng, Jiangquan Mai, Tsz-Ki Lau, Qianqian Zhang, Jiayu Wang, Cenqi Yan, Kuan Liu, Chun-Jen Su, Wei You, Xinhui Lu, and Xiaowei Zhan. Sol. RRL 2017, 1, 1700148. (DOI: 10.1002/solr.201700148)
- (86) "A Ladder-type Heteroheptacene 12*H*-Dithieno[2',3':4,5]thieno[3,2-*b*:2',3'-*h*]fluorene Based D-A Copolymer with Strong Intermolecular Interactions toward Efficient Polymer Solar Cells." Mingyan Yang, Tsz-Ki Lau, Shengqiang Xiao*, Jianhong Gao, Wei Wang, Xinhui Lu*, Shoujie Zhang, Jiansheng Wu, Chun Zhan, and **Wei You.*** *ACS Appl. Mater. Interfaces*, **2017**, *9*, 35159–35168. (DOI: 10.1021/acsami.7b12142)
- (85) "Fluorination of Donor–Acceptor Copolymer Active Layers Enhances Charge Mobilities in Thin-Film Transistors." Brandon H. Smith, Qianqian Zhang, Mary Allison Kelly, Joshua H. Litofsky, Dinesh Kumar, Alexander Hexemer, Wei You, and Enrique D. Gomez* ACS Macro Lett., 2017, 6, 1162–1167. (DOI: 10.1021/acsmacrolett.7b00716)
- (84) "The Curious Case of Fluorination of Conjugated Polymers for Solar Cells." Qianqian Zhang, Mary Allison Kelly, Nicole Bauer and **Wei You.*** *Acc. Chem. Res.* **2017**, *50*, 2401-2409. (DOI: 10.1021/acs.accounts.7b00326)
- (83) "Enhancing Performance of Nonfullerene Acceptors via Side-Chain Conjugation Strategy." Jiayu Wang, Wei Wang, Xiaohui Wang, Yang Wu, Qianqian Zhang, Cenqi Yan, Wei Ma, Wei You, and Xiaowei Zhan.* *Adv. Mater.* **2017**, 29, 1702125. (DOI: 10.1002/adma.201702125)
- (82) "Fluorinated Thiophene Units Improve Photovoltaic Device Performance of Donor–Acceptor Copolymers." Qianqian Zhang, Liang Yan, Xuechen Jiao, Zhengxing Peng, Shubin Liu, Jeromy James Rech, Erik Klump, Harald Ade, Franky So, and **Wei You.*** Chem. Mater. **2017**, 29, 5990-6002. (DOI: 10.1021/acs.chemmater.7b01683)
- (81) "Charge Generation and Mobility-Limited Performance of Bulk Heterojunction Solar Cells with a Higher Adduct Fullerene." Steffen Roland, Liang Yan, Qianqian Zhang, Xuechen Jiao, Adrian Hunt, Masoud Ghasemi, Harald Ade, Wei You, and Dieter Neher.* *J. Phys. Chem. C* 2017, 121, 10305-10316. (DOI: 10.1021/acs.jpcc.7b02288)
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Graduate and Postdoctoral Research

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6. SEMINARS and PRESENTATIONS

a. Keynote or Named Lectures

Chinese University of Hong Kong, Physics Colloquium Speaker November 2, 2018 (1)

b.	Invited	Presentati	ions
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The 16th Pacific Polymer Conference (PPC-16), Singapore	December 10, 2019
DGIST Global Innovation Festival (DGIF), Daegu, Korea	November 11, 2019
American Chemical Society Fall 2019 National Meeting	August 25, 2019
San Diego, CA	-
GPVC 2019, Gwangju, Korea	March 14, 2019
SPIE Organic, Hybrid, and Perovskite Photovoltaics XIX, San Die	go, CA
•	August 23, 2018
	DGIST Global Innovation Festival (DGIF), Daegu, Korea American Chemical Society Fall 2019 National Meeting San Diego, CA GPVC 2019, Gwangju, Korea

The 2nd WUT International Symposium on Advanced Optoelectronic Materials and (55)

Devices, Wuhan, China June 24, 2018

(54)Polymers Appreciation Day, University of Akron, Akron, OH May 10th, 2018 The 15th Pacific Polymer Conference (PPC-15), Xiamen, China (53)December 12, 2017

(52)American Chemical Society Fall 2017 National Meeting August 20-24, 2017 Washington, D.C.

13th International Symposium on Functional Pi-Electron Systems June 8, 2017 (51)Hong Kong, China

ONR Organic Photovoltaics Program Review (50)May 17, 2017 Baltimore, MD

Materials Research Society Spring Meeting, Phoenix, AZ (49)April 20, 2017 (48)

American Chemical Society Spring 2017 National Meeting April 2-5, 2017 San Francisco, CA

SERMACS (Southeastern Regional Meeting of the American Chemical Society) (47)October 25, 2016 Columbia, SC

(46)NSFC-RSC International Symposium: Novel Polymer Synthesis to Solve Tomorrow's Problems – Healthcare, Materials and Energy September 27, 2016 Hangzhou, China

(45)American Chemical Society Fall 2016 National Meeting August 23, 2016 Philadelphia, PA

Warwick Polymer Conference 2016 (44)July 12, 2016 Warwick, UK

(43)International Conference of Synthetic Metals (ICSM) 2016 June 30, 2016

	Guangzhou, China	
(42)	ONR Organic Photovoltaics Program Review	May 18, 2016
(41)	Arlington, VA American Chemical Society Spring 2016 National Meeting	March 15-16, 2016
	San Diego, CA	
(40) (39)	Pacificchem 2015 Congress, Hawaii 9th National and Global Chinese Conference on Organic Molecule Emitting Materials and Their Optoelectronic Properties together wi on Organic Electronics Nanjing, China	
(38)	13th International Conference of Polymers for Advanced Technology	gies (PAT2015)
(37)	Hangzhou, China Joint AFOSR and ONR Organic Photovoltaics Program Review	June 28, 2015 June 9, 2015
(36)	Santa Barbara, CA Workshop in NanoScience and NanoEngineering at Duke	April 17, 2015
(35)	American Chemical Society Spring 2015 National Meeting Denver, CO	March 23, 2015
(34)	KAUST Solar Future 2014 Meeting, KAUST, Saudi Arabia	November 10, 2014
(33)	29th Congress of Chinese Chemical Society, Beijing, China	August 5, 2014
(32)	Joint AFOSR and ONR Organic Photovoltaics Program Review Arlington, VA	June 5, 2014
(31)	European MRS Spring Meeting, Lille, France	May 27, 2014
(30)	Polymer Club Chemistry Insight Day, University of Warwick, UK	May 22, 2014
(29) (28)	Materials Research Society Spring Meeting, San Francisco, CA 3rd Symposium on Organic Photovoltaics at Kent State University Kent, OH	April 23, 2014 April 16, 2014
(27)	American Chemical Society Spring 2014 National Meeting Dallas, TX	March 18, 2014
(26)	American Chemical Society Spring 2014 National Meeting Dallas, TX	March 16, 2014
(25)	2013 WUT International Symposium on Advanced Optoelectronic Materials and Devices, Wuhan, China	October 15, 2013
(24)	Joint AFOSR and ONR Organic Photovoltaics Program Review Arlington, VA	May 21, 2013
(23) (22)	Eastman Chemicals, Kingsport, TN American Chemical Society Spring 2013 National Meeting	May 8, 2013 April 9, 2013
(22)	New Orleans, LA	710111 0, 2010
(21)	Duke 2012-2013 FIP Annual Symposium, Durham, NC	March 12, 2013
(20)	Dreyfus Foundation Teacher-Scholar Symposium (Poster) New York City, NY	October 26, 2012
(19)	NSF/ONR Workshop on Next Generation Organic Solar Cell Arlington, VA	September 21, 2012
(18)	Sungkyun International Solar Forum 2012, Seoul, Korea	May 31, 2012
(17)	ONR Organic/Hybrid Photovoltaics Program Review Arlington, VA	May 25, 2012
(16)	American Chemical Society Spring 2012 National Meeting San Diego, CA	March 27, 2012
(15) (14)	SPIE Organic Photovoltaics XII, San Diego, CA Joint Navy Air Force Organic Hybrid Solar Cell Research	August 24, 2011 June 28, 2011
(4.0)	Program Review, National Harbor, MD	N 1 0 0010
(13)	Konarka Technologies, Lowell, MA	November 2, 2010

(12)	Oak Ridge Organic Photovoltaics Workshop	September 15, 2010
(11)	Oak Ridge National Lab, TN American Chemical Society 239th National Meeting	March 23, 2010
(10)	San Francisco, CA (in POLY/PMSE Young Investigator Symposium Nano Conferences, Wake Forest University Wake Forest, NC	im) October 19, 2009
(9) (8)	MRS Student Chapter, UNC Chapel Hill Joint Navy Air Force Organic Hybrid Solar Cell Research Program Review, National Harbor, MD	August 25, 2009 May 19, 2009
(7)	External Advisory Board Meeting of Chemistry Department UNC Chapel Hill	May 15, 2009
(6)	American Chemical Society 237 th National Meeting Salk Lake City, UT	March 24, 2009
(5)	SERC Annual Symposium: "Securing our Energy Future – Next Generation Photovoltaics & Solar Fuels", Chapel Hill, NC	January 16, 2009
(4)	The Arizona Research Institute for Solar Energy-PV 2008 Workshop, Esplendor Resort at Rio Rico, AZ	October 29, 2008
(3)	The 3 rd International Symposium on Polymer Chemistry PC' 2008, Hefei, China	June 17, 2008
(2)	4 th Japan-US Young Researcher Exchange Symposium Tohoku University, Sendai, Japan	May 30, 2007
(1)	4 th Japan-US Young Researcher Exchange Symposium UNC Charlotte, Charlotte, NC	March 7, 2007
c. De (69) (68) (67) (66)	epartmental Seminar Department of Chemistry, University of Miami, Miami, FL KIST, Seoul, Korea Korea University, Seoul, Korea Key Laboratory of High Performance Plastics, Jilin University	November 19, 2019 November 14, 2019 November 13, 2019 June 24, 2019
(65) (64) (63) (62) (61)	Changchun, China School of Materials Science and Engineering, GIST, Korea Department of Energy System Engineering, DGIST, Korea Department of Chemical Engineering, POSTECH, Korea Department of Chemistry, Korea University, Korea Electronic and Information Engineering, The Hong Kong Polytech	
(60) (59)	Department of Chemistry, University of North Texas Department of MSE, Southern University of Science and Technology	0.
(58) (57) (56) (55) (54) (53) (52) (51) (50) (49) (48) (47)	Dept. of Chem. and Phys., Fayetteville State University Dept. of Polymer Sci. and Eng., USTC School of Materials, Hefei University of Technology Department of Chemistry, University of Saskatchewan Department of Polymer Science, University of Akron School of Chemistry and Materials, Soochow University, China Department of Chemistry, Highpoint University Department of Chemistry, UC Davis Department of Chemistry, Clemson University Department of Chemistry, Zhejiang University, China Department of Chemistry, Wuhan University, China ORaCEL, NC State	July 02, 2018 February 28, 2018 December 6, 2017 December 5, 2017 November 20, 2017 September 08, 2017 July 17, 2017 June 23, 2017 May 30, 2017 March 9, 2017 September 30, 2016 June 14, 2016 March 21, 2016

(46)	Nebraska Center for Materials and Nanoscience, University of Neb	oraska
(10)	Trobladia Gerilei for Materiale and Transcolorice, emirerally of Trob	March 9, 2016
(45)	Department of Chemistry, Carnegie Mellon University	September 24, 2015
(44)	Department of Chemistry, NC Central University	September 14, 2015
(43)	Department of Polymer Science & Engineering, USTC, China	July 20, 2015
(42)	State Key Lab of Luminescent Materials and Devices, South China	
	Guangzhou, China	July 13, 2015
(41)	School of Chemistry, Beijing Institute of Technology, China	July 10, 2015
(40)	Institute of Chemistry, Chinese Academy of Sciences, China	July 9, 2015
(39)	Department of Chemistry, Imperial College London, UK	May 14, 2015
(38)	Center for Materials for Information Technology (MINT)	May 1, 2015
(37)	University of Alabama Department of Chemistry, Purdue University	March 10, 2015
(36)	Department of Chemistry, Furdue Onliversity Department of Materials Science and Engineering	August 26, 2014
(30)	University of Florida	August 20, 2014
(35)	Department of Chemistry, Nankai University, China	August 1, 2014
(34)	Department of Chemistry, University of Tennessee, Knoxville	April 3, 2014
(33)	Department of Chemistry, East Carolina University	April 5, 2013
(32)	Department of Materials Science and Engineering	Feb 6, 2013
, ,	University of Florida	
(31)	State Key Lab of Advanced Technology for Materials Synthesis an	nd Processing
	Wuhan University of Technology	November 6, 2012
(30)	Department of Polymer Science & Engineering	June 12, 2012
	Zhejiang University, China	
(29)	Pusan National University (Pusan, South Korea)	June 5, 2012
(28)	Postech (Pohang, South Korea)	June 5, 2012
(27)	DGIST (Daegu, South Korea)	June 4, 2012
(26)	Department of Chemistry & Chemical Biology, U. of New Mexico	April 27, 2012
(25)	Department of Chemistry, UNC Charlotte	March 18, 2012
(24) (23)	Center for Functional Nanomaterials, Brookhaven National Lab Department of Chemistry, Duke University	January 23, 2012 October 4, 2011
(22)	School of Science, Anhui Agricultural University, China	June 1, 2011
(21)	Department of Polymer Science & Engineering, USTC, China	May 13, 2011
(20)	Department of Polymer Science & Engineering, U. Mass Amherst	
(19)	Department of Chemistry, Northwestern University	April 8, 2011
(18)	Materials Science Program, U. of Wisconsin	March 10, 2011
(17)	Department of Chemistry, U. of Southern California	March 8, 2011
(16)	Department of Chemistry, Caltech	March 7, 2011
(15)	Department of Chemistry, U. of Michigan	February 15, 2011
(14)	Industrial Partnership for Research in Interfacial and Materials Eng	• • • • • • • • • • • • • • • • • • • •
	University of Minnesota	November 18, 2010
(13)	Research Laboratory of Electronics, MIT	November 7, 2010
(12)	Department of Chemistry & Chemical Biology,	
(4.4)	Renssellaer Polytechnic Institute	October 19, 2010
(11)	Department of Chemistry, U. of Chicago	October 1, 2010
(10)	Department of Materials Science & Engineering,	Contombor 16 2010
(0)	U. of Tennessee at Knoxville	September 16, 2010
(9) (8)	Department of Chemistry, U. of Washington Department of Chemistry, Penn State University	May 25, 2010 March 1, 2010
(7)	Department of Chemistry, Appalachian State University	November 6, 2009
(6)	Department of Chemistry, U. of Nevada, Las Vegas	October 23, 2009
(5)	Doparament of entermony, or of Horada, Edo regue	20,000

(4) (5) (3) (2) (1)	Department of De	March 26, 2009 February 26, 2009 October 16, 2008 November 19, 2007 September 7, 2006	
d. O	ther Presentat	ions	
(3)		emical Society 238th National Meeting	August 19, 2009
	Washington,		
(2)	Gordon Research Conference: Polymers June 23, 20009		
	Mount Holyoke College, South Hadley, MA (poster)		
(1)	Materials Research Society Spring Meeting, San Francisco, CA March 26, 2008		
7. TEACHING RECORD			
a. Course Assignments			
(28)	Fall 2019	CHEM 101 "General Chemistry" (210 students)	
(27)	Spring 2019	- · · · · · · · · · · · · · · · · · · ·	s)
(26)	Spring 2019	MTSC 891 "Special Topics Electronic Materials an Inorganic (3 students)	

CHEM 420 "Introduction to Polymers" (57 students)

MTSC 891 "Special Topics Electronic Materials and Devices-Organic and

Inorganic (10 students) (23) Fall 2017 CHEM 721 "Polymer/Materials Seminar" (10 students)

- (22) Spring 2017 CHEM 521 "Polymer Lab" (8 students)
- (21) Spring 2017 CHEM 261 "Introduction to Organic Chemistry (I)" (200 students)
- (20) Fall 2016 CHEM 721 "Polymer/Materials Seminar" (12 students)
- (19) Spring 2016 CHEM 521 "Polymer Lab" (6 students)
- (18) Fall 2015 CHEM 421 "Polymer Synthesis" (24 students)
- (17) Spring 2015 CHEM 521 "Polymer Lab" (7 students)
- (16) Fall 2014 CHEM 421 "Polymer Synthesis" (23 students)
- (15) Spring 2014 CHEM 721 "Polymer/Materials Seminar" (16 students)
- (14) Fall 2013 CHEM 421 "Polymer Synthesis" (24 students)
- (13) Summer 2013 CHEM 261 "Introduction to Organic Chemistry (I)" (18 students)
- (12) Spring 2013 CHEM 521 "Polymer Lab" (7 students)
- (11) Fall 2012 CHEM 421 "Polymer Synthesis" (32 students), and 20+ Chinese students
- (10) Spring 2012 CHEM 764 Special Topic in Organic Chemistry: Organic Electronics and Photonics" (4 registered, total 10 sitting in the class)
- (9) Fall 2011 CHEM 421 "Polymer Synthesis" (30 students), and 50+ Chinese students
- (8) Fall 2010 CHEM 421 "Polymer Synthesis" (35 students)
- (7) Spring 2010 CHEM 262 "Introduction to Organic Chemistry (II)" (143 students)
- (6) Fall 2009 CHEM 421 "Polymer Synthesis" (30 students)
- (5) Spring 2009 CHEM 764 Special Topic in Organic Chemistry: Organic Electronics and Photonics" (6 students)
- (4) Fall 2008 CHEM 421 "Polymer Synthesis" (38 students)
- (3) Spring 2008 CHEM 262 "Introduction to Organic Chemistry (II)" (113 students)
- (2) Fall 2007 CHEM 421 "Polymer Synthesis" (35 students)
- (1) Spring 2007 CHEM 764 "Special Topic in Organic Chemistry: Organic Electronics and Photonics" (5 registered, total 20 sitting in the class)

b. Dissertation and Theses

(25)

(24)

Spring 2018

Spring 2018

- (30) Ian VonWald PhD (November 2019)
 Title: INITIATION, STRUCTURE, MORPHOLOGY, AND CHARGE TRANSPORT IN
 CONJUGATED POLYMER BRUSHES
- (29) Nicole Bauer PhD (April 2019)
 Title: INVESTIGATING NON-FULLERENE ACCEPTORS IN ORGANIC PHOTOVOLTAICS
- (28) Jun Hu PhD (October 2018)
 Title: TWO-DIMENSIONAL ORGANIC-INORGANIC HYBRID PEROVSKITE SOLAR
 CELLS
- (27) David Dirkes PhD (June 2018)
 Title: EVALUATING THE IMPACT OF CHEMICAL STRUCTURE ON THE
 INTERACTIONS AND OPTOELECTRONIC PERFORMANCE OF CONJUGATED
 SMALL MOLECULES
- (26) Huamin Hu PhD (April 2018)
 Title: DESIGN OF BIOMIMETICALLY INSPIRED HYDROXYAPATITE-GELATIN
 BASED COMPOSITE FOR BONE SCAFFOLD APPLICATION
- (25) Elizabeth Keenan PhD (March 2018)
 Title: INVESTIGATION INTO THE IMPROVEMENT OF MoS2 FUNCTIONALIZATION,
 SMALL MOLECULE TRANSISTORS, AND 2D PEROVSKITES
- (24) Qianqian Zhang PhD (June 2017)
 Title: DESIGN AND SYNTHESIS OF CONJUGATED POLYMERS FOR ORGANIC
 PHOTOVOLTAICS: TUNING THE CONJUGATED BACKBONE AND SUBSTITUENTS
- (23) Stephanie Liffland Undergraduate Honor Thesis (May 2017)
 Title: METHANOL MEDIATED LIVING CATIONIC POLYMERIZATION VIA AN OXONIUM INTERMEDIATE
- (22) Mary Allison Kelly PhD (April 2017)
 Title: FUNDAMENTAL STUIDES OF TERNARY BLENDS FOR BULK HETERO
 JUNCTION SOLAR CELLS
- (21) Sam Anderson PhD (August 2016)
 Title: EXPLORING THE DESIGN AND SYNTHESIS OF CONJUGATED MATERIALS
 FOR APPLICATIONS IN ORGANIC ELECTRONICS
- (20) Josh Yablonski PhD (August 2015)
 Title: DESIGN, FABRICATION, AND CHARACTERIZATION OF ORGANIC ELECTRONIC DEVICES FOR THERMOELECTRIC APPLICATIONS
- (19) Robert Bruce PhD (June 2015)
 Title: CHARGE TRANSPORT IN ORGANIC AND ORGANOMETALLIC MOLECULES:
 DEVICE DESIGN, FABRICATION, AND TESTING
- (18) Wentao Li PhD (June 2015)
 Title: FUNDAMENTAL UNDERSTANDING OF A HIGH PERFORMANCE POLYMER
 FOR ORGANIC PHOTOVOLTAICS AND NEW MATERIAL DEVELOPMENT BY
 RATIONAL MOLECULAR ENGINEERING
- (17) Travis LaJoie PhD (April 2015)
 Title: CONJUGATED POLYMER BRUSHES AS MOLECULAR WIRES IN
 ELECTRONIC DEVICES: SYNTHESIS, DEVICE DESIGN, AND CHARACTERIZATION
- (16) Adam Alman MS (July 2014)
- (15) Jason Dyke PhD (June 2014)
 Title: DESIGNING BIOMIMETICALLY INSPIRED MATERIALS FOR POTENTIAL
 ORTHOPEDIC TISSUE ENGINEERING APPLICATIONS
- (14) Maggie Radack Undergraduate Honor Thesis (May 2014)
 Title: INCREASING LIGHT ABSORPTION OF POLYMER SOLAR CELL VIA SIDECHAIN CHROMOPHORE ENGINEERING

- (13) Rycel Uy PhD (June 2013)
 Title: STRUCTURE-PROPERTY OPTIMIZATIONS OF SEMICONDUCTING
 POLYMERS FOR ORGANIC SOLAR CELLS
- (12) Erik Thiede Undergraduate Honor Thesis (May 2013)
 Title: LITHIATED NON-STOICHIOMETRIC NIO AS A HOLE TRANSPORT LAYER
- (11) Matt Wilkins Undergraduate Thesis (September 2012)
 Title: DESIGN, SYNTHESIS AND ANALYSIS OF NOVEL CONJUGATED POLYMERS
 FOR BULK HETEROJUNCTION SOLAR CELLS
- (10) Liqiang Yang PhD (July 2012)
 Title: DESIGN STRATEGIES FOR POLYMER SOLAR CELLS OF HIGH EFFICIENCY
 AND LOW COST: MATERIALS, INTERFACE, AND DEVICE STRUCTURES
- (9) Andrew Stuart PhD (July 2012)
 Title: OPTIMIZATION AND CHARACTERIZATION OF NEW MATERIALS TO ENHANCE PERFORMANCE OF POLYMER SOLAR CELLS
- (8) Rui Jin MS (May 2012)
- (7) James Blair MS (December 2011)
- (6) Huaxing Zhou PhD (November 2011)
 Title: RATIONAL DESIGN OF HIGH PERFORMANCE CONJUGATED POLYMERS FOR ORGANIC SOLAR CELLS
- (5) Samuel C. Price PhD (May 2011)
 Title: THE SYNTHESIS AND OPTIMIZATION OF CONJUGATED POLYMERSFOR PHOTOVOLTAIC APPLICATIONS
- (4) Jeremy R. Niskala PhD (December 2010)
 Title: MOLECULAR SPINTRONICS: DESIGN, FABRICATION, AND CHARACTERIZATION
- (3) Kelly Jane Knight Undergraduate Thesis (September 2010)
 Title: POLYMERIC BIOMATERIALS FOR USE IN DENTAL APPLICATIONS
- (2) Nabil Kleinhenz Undergraduate Honor Thesis (May 2010)
 Title: SYNTHESIS AND ANALYSIS OF NEW MATERIALS FOR POLYMER SOLAR
 CELLS
- (1) Peng Dai MS (KTH, Sweden)

c. Research Group

Current Group

Research Associate (1)

(1) Liang Yan 12/2016 – present PhD: University of Tennessee, Knoxville

Postdoctoral Scholars (4)

(4)	Dr. Zhichao Cao	09/2019 - present	PhD: Peking University, China
(3)	Dr. Jun Hu	01/2019 – present	PhD: UNC at Chapel Hill
(2)	Dr. Sungyun Son	11/2018 - present	PhD: POSTECH, Korea

(1) Dr. Joji Tanaka 10/2018 – present PhD: University of Warwick, UK

Graduate Students (4)

(4) Jeromy Rech 4th Year BS: Lewis

(3) Stephanie Samson 3rd Year BS: Caltech, MS: Stanford

(2) Kyle Cushman 2nd Year BS: Hope College

(1) Xiaowei Zhong 1st Year BS: Southern University of Sci. and Technology

Undergraduate Students (3)

(3) Noel E. Archer 08/2019 – current Class of 2022

(2) (1)	Parker T. Boeck Spencer Bradshaw	05/2019 – current 08/2018 – present	Class of 2020 Class of 2020	
	er Members			
Posto	loctoral Scholars (7)			
(7)	Dr. David Dirkes	07/2018 – 06/2019	PhD: UNC Chapel Hill	
(6)	Dr. Zheng Chen	09/2018 – 12/2019	PhD: Jilin University, China	
(5)	Dr. Alka Prasher	02/2016 - 08/2017	PhD: University of New Hampshire	
(4)	Dr. Zhou Chen	09/2014 - 08/2015	PhD: Shanghai Institute of Org. Chem., C	CAS
(3)	Dr. Liqiang Yang	08/2012 - 10/2013	PhD: UNC Chapel Hill	
(2)	Dr. Shengqiang Xiao		PhD: Chinese Academy of Science	
(1)	Dr. Paul Hoertz	02/2007 - 08/2008	PhD: Johns Hopkins University	
		02/2007	The coming risplants critically	
	uate Students (23)			
(23)	lan VonWald	PhD, 11/2019, UNC-	CH Current: EPA	
(22)	Nicole Bauer	PhD, 05/2019, UNC-	CH Current: Aldon	
(21)	Jun Hu	PhD, 10/2018, UNC-	CH Current: UNC-CH	
(20)	David Dirkes	PhD, 06/2018, UNC-	CH Current: UNC-CH	
(19)	Huamin Hu	PhD, 04/2018, UNC-	CH Current: Eastman	
(18)	Elizabeth Keenan	PhD, 03/2018, UNC-	CH Current: Cree	
(17)	Qianqian Zhang	PhD, 06/2017, UNC-		
(16)	Mary Allison Kelly	PhD, 04/2017, UNC-		SS
(15)	Sam Anderson	PhD, 08/2016, UNC-		50
(14)	Josh Yablonski	PhD, 08/2015, UNC-	<u> </u>	
(13)	Robert Bruce	PhD, 06/2015, UNC-	<u> </u>	
(12)	Wentao Li	PhD, 06/2015, UNC-		
	Travis LaJoie	PhD, 04/2015, UNC-		
(11)				
(10)	Adam Alman	MS, 07/2014, UNC-C		
(9)	Jason Dyke	PhD, 06/2014, UNC-	CH Current: University School, Cleveland	
(8)	Rycel Uy	PhD, 06/2013, UNC-	CH Current: BAE Systems	
(7)	Liqiang Yang	PhD, 07/2012, UNC-	CH Current: Cree	
(6)	Andrew Stuart	PhD, 07/2012, UNC-	CH Current: startup	
(5)	Rui Jin	MS, 05/2012, UNC-C	CH Current: NA	
(4)	James Blair	MS, 12/2011, UNC-C		
(3)	Huaxing Zhou	PhD, 11/2011, UNC-	CH Current: ExxonMobil	
(2)	Sam Price	PhD, 05/2011, UNC-		
(1)	Jeremy Niskala	PhD, 12/2010, UNC-		
	•	, ,		
	rgraduate Students (2	•		
(29)	Anthony M. Bonilla	05/2019 – 07/2019	summer undergrad. student from Univer	sity
()			of Puerto Rico at Cayey	
(28)	Spencer Bradshaw	08/2018 – current	Class of 2020	
(27)	Yeojin Park	08/2018 – 12/2018	Class of 2019	
(26)	Joe Kaplan	08/2016 – 05/2018	Class of 2018	
(25)	Philip Todd	08/2017 – 05/2018	Class of 2018	
(24)	Stephanie Liffland	01/2016 - 05/2017	Class of 2017	
(23)	Dustin Sneed	01/2016 - 05/2017	Class of 2018	
(22)	Brett Bowman	08/2014 - 06/2016	Class of 2016	
(21)	Alexandria Pinnix	05/2015 - 07/2015	summer undergrad. student from Winthr	ор
(20)	Joseph Nenow	08/2013 - 05/2015	Class of 2015	•
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(19) (18) (17) (16) (15) (14) (13) (12) (11) (10) (9) (8) (7) (6) (5) (4) (3) (2) (1)	Xue Sun Emily Lam Maggie Radack Luke Ellis Erik Thiede Matt Wilkins Adam Rieth Betsy Melenbrink Phil Hamilton Michael Aubrey Matt Krattenmaker Rachel Zachary Marco Torelli Nabil Kleinhenz Kelly Jane Knight Sarah Stoneking Michael Feng Kevin Pfeuffer Rakjoon Jeon	05/2014 - 07/2014 06/2014 - 08/2014 01/2012 - 05/2014 08/2012 - 05/2013 08/2011 - 05/2013 08/2011 - 05/2012 08/2011 - 05/2012 01/2011 - 08/2011 08/2010 - 08/2011 08/2009 - 05/2011 08/2010 - 12/2010 08/2009 - 05/2010 08/2009 - 05/2010 08/2009 - 05/2010 08/2009 - 05/2010 08/2008 - 05/2010 08/2008 - 05/2009 05/2008 - 08/2008 01/2007 - 05/2007	summer undergraduate student from NUS summer undergraduate student from UNC Class of 2014 Class of 2013 Class of 2013 Exchange student from University of Bristol Class of 2012 Class of 2012 Class of 2011 Class of 2012 Class of 2013 Class of 2013 Class of 2010 Class of 2010 Exchange student from University of Bristol Class of 2010 summer undergraduate student from Duke Class of 2008 Class of 2008
(5) (4) (3) (2) (1)	School Students (5) Emily Liu Rose Huang Adithya Iyengar Dalana Mack Darren Zhu	Summer 2018 (10 we Summer 2015 (10 we Summer 2014 (10 we Summer 2008 (10 we Summer 2008 (3 week)	eeks) summer program, NCSSM eeks) summer program, NCSSM eeks) Project SEED
Visitii	ng Professors (6)		
(6) (5) (4)	Dr. Youngu Lee Dr. Zheng Chen Dr. Junge Zhi	03/2018 - 02/2019 09/2017 - 08/2018 08/2015 - 08/2016	visiting professor from DGIST, Korea visiting professor from Jilin University, China visiting professor from Beijing Institute of
(3)	Dr. Lili Wu	06/2014 – 06/2015	Technology, China visiting professor from Wuhan University of Technology, China
(2)	Dr. Soo-Hyoung Lee	01/2012 - 07/2013	visiting professor from Chungbuk National
(1)	Dr. Jianfeng Zhang	09/2008 – 02/2009	University, South Korea visiting professor from Ningbo University, China
Visitii	ng Students (5)		
(5)	Sam Lawson	03/2017 - 04/2017	visiting student from Warwick, UK
(4)	Yun Zhu	07/2016 - 08/2016	visiting student from USTC, China
(3)	Seunghun Eom	06/2012 – 05/2014	visiting student from Chungbuk National University, South Korea
(2)	Yanni Jie	09/2009 – 03/2012	visiting student from Northwest Polytechnic University, China
(1)	Peng Dai	10/2007 - 05/2008	visiting student from KTH, Sweden

Awards, Honors, and Special Achievements

(31) Kyle Cushman (graduate student) 3rd place at the 3rd annual Future of Materials Research II (FOM II) Workshop

(30)	Spencer Bradshaw (undergraduate)	James Maguire Memorial Award, Chemistry Department at UNC
(29)	Nicole Bauer (graduate student)	Dissertation Completion Fellowship
(28)	Nicole Bauer (graduate student)	Druscilla French Graduate Student Excellence
(- /	(3,	Fellowship, Chemistry Department at UNC
(27)	Jeromy Rech (graduate student)	2 nd place at the 2nd annual Future of Materials
, ,	,	Research II (FOM II) Workshop
(26)	Allison Kelly (graduate student)	3rd place at the 1st annual Future of Materials
		Research (FOM) Workshop
(25)	lan VonWald (graduate student)	1st place at the 5th annual Triangle Student
		Research Competition (TSRC)
(24)	Stephanie Liffland (undergraduate)	Francis P. Venable Medal, Chemistry Department
		at UNC
(23)	Qianqian Zhang (graduate student)	"Excellence in Polymer Graduate Research"
()		ACS POLY Division
(22)	Stephanie Liffland (undergraduate)	Jason D. Altom Memorial Award for Undergraduate
(0.4)		Research, Chemistry Department at UNC
(21)	lan VonWald (graduate student)	NSF Graduate Fellowship
(20)	Elizabeth Keenan (graduate student	
(19)	Maggie Radack (undergraduate)	Francis P. Venable Medal (highest award for UNC
(40)	M : D ()	Chem BS graduates)
(18)	Maggie Radack (undergraduate)	Poster Award, NC-ACS meeting
(17)	Maggie Radack (undergraduate)	Jason D. Altom Memorial Award for Undergraduate
(4.0)	Incom Duka (avaduata atudanta)	Research, Chemistry Department at UNC
(16)	Jason Dyke (graduate students)	Graduate Student Mentoring Award
(15)	Adam Alman (graduate student)	Carolina Energy Fellowship
(14)	Maggie Radack (undergraduate)	Gertrude Elion NC-ACS Undergraduate Award
(13)	Jason Dyke (graduate student)	Eastman Fellowship
(12)	Robert Bruce (graduate student)	Richard G. Hiskey Graduate Fellowship NSF Graduate Fellowship
(11) (10)	Sam Anderson (graduate student) Travis LaJoie (graduate student)	NSF Graduate Fellowship
(9)	Rycel Uy (graduate student)	PMSE Poster Award, ACS Meeting, August 2011
(8)	Huaxing Zhou (graduate student)	Francis Preston Venable Award
(7)	Huaxing Zhou (graduate student)	ACS POLY Travel Award
(6)	Darren Zhu (RECAP student)	Davidson Fellow 2009
(5)	Sam Price (graduate student)	Carolina Energy Fellowship 2009-2011
(4)	Nabil Kleinhenz (undergradudate)	Ernest Eliel Undergraduate Scholarship 2009
(3)	Paul G. Hoertz (postdoc)	UNC Postdoctoral Scholar Research Award 2008
(2)	Sam Price (graduate student)	Applied Materials graduate fellowship 2008-2009
(1)	Darren Zhu (RECAP student)	Siemens competition, semi-finalist 2008
(')	25	c.cc.c.c.ipolition, com michot 2000

8. PROFESSIONAL SERVICES

a. Service to discipline

Annually reviewing $\sim 10-20$ proposals for NSF/DoE; $\sim 40-50$ manuscripts for ACS journals, Wiley journals, and Nature series.

- (29) Organizer, The 2nd WUT International Symposium on Advanced Optoelectronic Materials and Devices, June 23-25, 2018, Wuhan, China
- (28) Presenter, ACS POLY Webinar, April 24, 2018
- (27) co-Chair, SERMACS, Symposium "Nanostructured Polymers: Chemistry and

- Applications," November 8-10, 2017, Charlotte, NC
- (26) Discussion leader, GRC Polymer, June 11-16 2017, Mount Holyoke College, MA
- (25) co-Chair, International Conference of Electroluminescence and Optoelectronic Devices (ICEL), October 2-5, 2016, Raleigh, NC
- (24) National Science Foundation, Panelist for GRFP, Jan 2016
- (23) co-Chair, American Chemical Society Spring 2015 National Meeting, Symposium: "Celebrating the Fifth Year Anniversary of Polymer Chemistry (RSC)", March 22, 2015, Denver, CO
- (22) National Science Foundation, Panelist, March 2015
- (21) co-Chair, SERMACS, Symposium "Conjugated Organic Materials for Energy Storage, Energy Conversion and Charge Transport", October 17-19, 2014, Nashville, TN
- (20) National Science Foundation, Panelist, September 2014
- (19) National Science Foundation, Panelist, March 2014
- (18) National Science Foundation, STC site visit, April 2013
- (17) National Science Foundation, Panelist, April 2013
- (16) National Science Foundation, Panelist, March 2013
- (15) National Science Foundation, Panelist, March 2012
- (14) Session Chair, "Solar Fuels: Photonic Assemblies, Materials and Catalysts", SERMACS, November 14-15, 2012, Raleigh, NC
- (13) co-Chair, NSF / ONR Workshop on "Key Scientific and Technological Issues for the Development of Next Generation Organic Solar Cells", September 20-21, 2012, Arlington, VA
- (12) National Science Foundation, Panelist, April 2012
- (11) co-Chair, MRS Spring 2012 Meeting, Symposium Z: "Conjugated Organic Materials Synthesis, Structure, Device, and Applications", April 9-13, 2012, San Francisco, CA
- (10) National Science Foundation, Panelist, October 2011
- (9) Organizer, 8th National Graduate Research Polymer Conference, June 6-9, 2010, Chapel Hill, NC
- (8) National Science Foundation, Panelist, March 2010
- (7) National Science Foundation, Panelist, March 2009
- (6) National Science Foundation, Panelist, February 2009
- (5) co-Chair, MRS Spring 2008 Meeting, Symposium AA: "Conjugated Organic Materials Synthesis, Structure, Device, and Applications", March 24-28, 2008, San Francisco, CA
- (4) National Science Foundation, Panelist, November 2007
- (3) Lecture at American Chemical Society's "Preparing for Life after Graduate School (PfLAGS)", UNC Chapel Hill, May 3, 2007
- (2) Co-Organizer, the Annual Upper Midwest MRSEC Student Symposium 2003, May 2003, Chicago, IL
- (1) Reviewer of research proposals submitted to the National Science Foundation, Department of Energy, ACS Petroleum Research Fund, AAAS, and Hong Kong Research Council

b. Departmental services

- (14) Faculty Search Committee for Dept. of Applied Physical Sciences, 2018-2019
- (13) Faculty Search Committee for Dept. of Applied Physical Sciences, 2017-2018
- (12) Faculty Search Committee for Dept. of Applied Physical Sciences, 2016-2017
- (11) Faculty Search Committee for Dept. of Applied Physical Sciences, 2015-2016
- (10) Faculty Search Committee, 2015-2016 (hired Leibfarth)
- (9) Chair Search Committee for Chemistry, UNC, 2015
- (8) Faculty Search Committee for Dept. of Applied Physical Sciences, 2014
- (7) Faculty Search Committee, 2012-2013 (hired Lockett, Hicks)

- (6) Vice Chair for Research, 2012 2017
- (5) Facility Committee, 2011 2012
- (4) Faculty Search Committee, 2010-2011 (hired Kanai, Cahoon, Meek, Dempsey, Miller)
- (3) Point of Contact for "Tier 1 Polymer Focus School" of Eastman Chemical
- (2) Graduate Study Committee, 2006 2012
- (1) Faculty Advisor to Alpha Eta Chapter (at UNC-CH) of Gamma Sigma Epsilon Gamma Sigma Epsilon, the National Chemistry Honor Society, 2008 present

c. University service

- (5) CHANL Advisory Board, 2018-
- (4) Hettleman Prize Selection Committee, 2017-2019
- (3) Faculty Council, 2014 2017 (elected, 3 year term)
- (2) Faculty Council, 2011 2014 (elected, 3 year term)
- (1) University Teaching Award Committee, 2011-2012

d. Services to the public

- (13) Participating in UNC Science Expo, April 6, 2019
- (12) Participating in UNC Science Expo, April 14, 2018
- (11) Participating in UNC Science Expo, April 22, 2017
- (10) Participating in UNC Science Expo, April 09, 2016
- (9) Participating in UNC Science Expo, April 11, 2015
- (8) Participating in UNC Science Expo, April 12, 2014
- (6) Faiticipating in the Science Expo, April 12, 2014
- (7) Participating in UNC Science Expo, April 9, 2013
- (6) Participating in UNC Science Expo, April 14, 2012
- (5) Participated in the Center for Faculty Excellence interview project, October 2012
- (4) Lecture at NC Science Expo, September 25, 2010
- (3) Participating in the Climate LEAP program every summer (2009, 2010, 2011, 2012)
- (2) Advisor for a *Science 360* Program on Organic Solar Cells, Morehead Planetarium
- (1) North Carolina Science Festival, brown bag lunch and discussion, September 21, 2010