

Curriculum Vitae

Jin Xie, PhD Professor of Chemistry, Nanjing University



Group homepage: <http://hysz.nju.edu.cn/Xie> (Xie Group)

Office: (86)025-89681722

Email: xie@nju.edu.cn

Appointments:

01/2020-now	Professor	Principal Investigator of School of Chemistry & Chemical Engineering at Nanjing University (NJU)
09/2019-now	Joint Professor	Principal Investigator at ChemBIC, Nanjing University (NJU)
07/2017-12/2019	Associate Professor	Principal Investigator of School of Chemistry & Chemical Engineering at Nanjing University (NJU)

Education:

03/2014-03/2017	Postdoctor	Heidelberg University
07/2013-02/2014	Research Associate	Nanjing University
09/2008-06/2013	PhD	Nanjing University
09/2004-07/2008	Bachelor	Northeast Forestry University

Awards:

- 江苏省优秀本科毕业论文一等奖指导教师（2023）
- 2023 新和成中国化学创新奖（2023 NHU-CJC Innovation Award）
- 南京大学优秀本科毕业论文特等奖指导教师（2023, 李佳俊）
- 江苏省“互联网+”二等奖指导教师（2023, 本科生郭镇宇团队）
- 全国“互联网+”优秀创新创业导师（2023）
- 南京大学“育教融合奖”（2023）
- 第八届全国“互联网+”主赛道“金奖指导教师（2022, 本科生何恒驰团队）
- 中国银行青年教师优秀教学奖（2022）
- 南京大学优秀本科毕业论文特等奖指导教师（2022, 顾成奕涵）
- 南京大学优秀硕士论文指导教师（2022）
- 江苏省“互联网+”优秀指导教师（2022）
- 江苏省“互联网+”一等奖指导教师（2022）
- 上海“汇创青春”一等奖指导教师（2022）
- 南京大学“我最喜爱的研究生生涯导师”（2021）
- 化学化工学院首届“我最喜爱的研究生导师”（2021）
- 南京大学魅力导师奖（2021）
- Science China Chemistry Emerging Investigator（2021）
- National Outstanding Youth Funds 国家优秀青年基金（2021）
- ChemComm Emerging Investigator（2020）
- 2020 新和成中国化学创新奖（2020 NHU-CJC Innovation Award）

- RSC 2018 Top 1% Highly Cited Scholars (2019-2021)
- Jiangsu Funds for Distinguished Young Scholars 江苏省杰出青年基金(2019)
- Shuangchuang Program of Jiangsu Province 江苏省双创人才计划 (2019)
- Thieme Chemistry Journals Award (2019)
- Outstanding Reviewer for ChemComm (2018)
- Recruitment Program of Global Experts 国家海外高层次人才计划 (2017)
- Nanjing University Dengfeng Talents Plan 南京大学登峰人才计划 (Level B) (2017)
- Outstanding Doctoral Dissertation, Jiangsu Province (2014)
- Outstanding Doctoral Dissertation, Nanjing University (2014)
- College Student of The Year Award, Jiangsu Province 江苏省大学生年度人物 (2013)
- The National Scholarship for Doctoral Students 博士研究生国家奖学金 (2013)
- 教育部博士学术新人奖(2012)
- Youth Pioneer Award for Excellent Students, Jiangsu Province 江苏省青年创新先锋(2012)

Professional service:

- Associate Editor of Gold Bulletin (2021-now)
- Associate Editor of Frontiers in Chemistry (2021-now)
- Guest Editor for Special Issue of Emerging Investigators for Chinese Journal of Chemistry (2022)
- Member of ACS National Award Selection Committee in Organometallic Chemistry (2017-2020)
- Editorial Board of Heteroatom Chemistry (Wiley, 2018-now)
- Editorial Board of Chinese Journal of Synthetic Chemistry (2019-now)
- Editorial Board of Chinese Journal of Organic Chemistry (2021-now)
- Editorial Board of Chemical Synthesis (2021-now)
- Editorial Board of Chinese Journal of Chemistry (2021-now)
- Editorial Board of Science China Chemistry (2022-now)
- Reviewer for 20 reputable journals in chemistry from 2017, such as *Chem. Rev.*, *Chem. Soc. Rev.*, *Acc. Chem. Res.*, *Nat. Chem.*, *Nat. Catal.*, *Nat. Synth.*, *Nat. Commun.*, *J. Am. Chem. Soc.*, *Angew. Chem. Int. Ed.*, *Chem*, *JACS Au*, *ACS Cent. Sci.*, *Chem. Sci.*, *ACS Catal.*, *Chem. Catal.*, *Cell Reports Phy. Sci.*, *Chem. Commun.*, *Org. Lett.*, *Chem. Eur. J.*, *J. Org. Chem.*, *Eur. J. Org. Chem.*, *Org. Biomol. Chem.*, *Tetrahedron* etc.

Memberships:

- Member of Association of Chinese Chemists and Chemical Engineers in Germany
- Member of American Chemical Society
- Member of Chinese Chemical Society

Scientific Presentations:

A) Research Interest:

- Organic Synthesis (synergistic catalysis; di- and poly-nuclear transition metal catalysis)
- Mechanism study

- New concept in organic synthesis
- Biologically active molecules synthesis
- Artificial intelligence (AI) Chemistry

B) Citation Metrics

Total articles:	101	Patents	Books
Total citations:	7040		
H-index:	46	22	2

C) Publication List (*corresponding author, #Contributed equivalently)

- 1) Duan-Yang Liu, # Jie Han, # Kai Liu, Yaohang Cheng, Hairen Tan, Xiaoliang Yang, Weipeng Li, Jin Xie*, Dinuclear Gold-Catalyzed para-Selective C-H Arylation of Undirected Arenes by Noncovalent Interactions. *Angew. Chem. Int. Ed.* **2023**, 62, e202313122 (VIP paper).
- 2) Chuan-Gang Zhao, # Chaoyu Du, # Zhenyu Guo, Weipeng Li, Jie Han, Jin Xie*, Merging Manganese and Iminium Catalysis: Selective Hydroalkenylation of Unsaturated Aldehydes and Ketones. *Angew. Chem. Int. Ed.* **2023**, 62, e202312414.
- 3) Jie Han, Jin Xie*, Inner-Sphere Single Electron Transfer in Polynuclear Gold Photocatalysis. *ChemCatChem* **2023**, 15, e202300974.
- 4) Tao Zhong, Chengyihan Gu, Yuhang Li, Jun Huang, Jian Han, Chengjian Zhu, Jie Han, Jin Xie*, Manganese/Cobalt Bimetallic Relay Catalysis for Divergent Dehydrogenative Difluoroalkylation of Alkenes. *Angew. Chem. Int. Ed.* **2023**, 62, e202310762.
- 5) Cheng-Long Ji, Xinyi Zhai, Qing-Yun Fang, Chengjian Zhu, Jie Han and Jin Xie*, Photoinduced Activation of Alkyl Chlorides. *Chem. Soc. Rev.* **2023**, 52, 6120-6138.
- 6) Yubo Pang, # Shuai Chen, # Jie Han, # Chengjian Zhu, Chuan-Gang Zhao and Jin Xie*, Dimeric Manganese-Catalyzed Hydroalkenylation of Alkynes with a Versatile Silicon-Based Directing Group. *Angew. Chem. Int. Ed.* **2023**, 62, e202306922 (VIP paper).
- 7) Weipeng Li, # Yu Chen, # Yinghan Chen, # Siyu Xia, Wenju Chang, Chengjian Zhu, K. N. Houk, * Yong Liang* and Jin Xie*, Site-selective arylation of carboxamides from unprotected peptides. *J. Am. Chem. Soc.* **2023**, 145, 14865–14873.
- 8) Qing-Yun Fang, # Jie Han, # Mingzhe Qin, Weipeng Li, Chengjian Zhu, and Jin Xie*, Trinuclear Gold-Catalyzed 1,2-Difunctionalization of Alkenes. *Angew. Chem. Int. Ed.* **2023**, 62, e202305121.
- 9) Wenliang Wang, Meiling Ding, Chuan-Gang Zhao, Shuai Chen, Chengjian Zhu, Jie Han, Weipeng Li and Jin Xie*, Unlocking Migratory Insertion in Gold Redox Catalysis. *Angew. Chem. Int. Ed.* **2023**, 62, e202304019 (VIP paper).
- 10) Shangwen Fang, Jie Han, Chengjian Zhu, Weipeng Li and Jin Xie*, Gold-Catalyzed Four-Component Multifunctionalization of Alkynes. *Nat. Commun.* **2023**, 14, 3551.
- 11) Tiantian Li, # Jian Xu, # Renxing Lin, Sam Teale, Hongjiang Li, Zhou Liu, Chenyang Duan, Qian Zhao, Ke Xiao, Pu Wu, Bin Chen, Sheng Jiang, Shaobing Xiong, Haowen Luo, Sushu Wan, Ludong Li, Qinye Bao, Yuxi Tian, Xueping Gao, Jin Xie, Edward H. Sargent* and Hairen Tan*, Inorganic wide-bandgap perovskite subcells with dipole bridge for all-perovskite tandems. *Nat. Energy* **2023**, 8, 610–620.
- 12) Hao Liang, Yilitabaier Julaiti, Chuan-Gang Zhao and Jin Xie*, Electrochemical Gold-Catalyzed

- Biocompatible C(sp²)-C(sp) Coupling. *Nat. Synth.* **2023**, *2*, 338-347.
- 13) Cheng-Long Ji,[#] Jie Han,[#] Tingrui Li, Chuan-Gang Zhao, Chengjian Zhu, Jin Xie*, Photoinduced Gold-Catalyzed Divergent Dechloroalkylation of gem-Dichloroalkanes. *Nat. Catal.* **2022**, *5*, 1098-1109.
- 14) Tingrui Li, Yilitabaier Julaiti, Xiaopeng Wu, Jie Han, Jin Xie*, Gold-catalyzed Divergent Ring-Opening Rearrangement of Cyclopropenes Enabled by Dichotomous Gold-Carbenes. *Chem. Eur. J.* **2022**, *28*, e2022028.
- 15) Siyu Xia and Jin Xie*, Energy transfer in gold photocatalysis. *Gold Bulletin* **2022**, *55*, 123-127.
- 16) Nian Li, Yantao Li, Xiaopeng Wu, Chengjian Zhu and Jin Xie*, Radical deuteration. *Chem. Soc. Rev.* **2022**, *51*, 6291-6306
- 17) Xiaopeng Wu, Jinhang Li, Siyu Xia, Chengjian Zhu* and Jin Xie*, Nickel-Catalyzed Thioester Transfer Reaction with sp²-Hybridized Electrophiles. *J. Org. Chem.* **2022**, *87*, 10003-10017.
- 18) Jin Wen, Yicheng Zhao, Zhou Liu, Han Gao, Renxing Lin, Sushu Wan, Chenglong Ji, Ke Xiao, Yuan Gao, Yuxi Tian, Jin Xie, Christoph J. Brabec and Hairen Tan*, Steric Engineering Enables Efficient and Photostable Wide-Bandgap Perovskites for All-Perovskite Tandem Solar Cells. *Adv. Mat.* **2022**, 2110356.
- 19) Jian Han,[#] Jie Han,[#] Shuai Chen, Tao Zhong, Yijie He, Xianli Yang, Guoqiang Wang, Chengjian Zhu and Jin Xie* Photoinduced manganese-catalyzed hydrofluorocarbofunctionalization of alkenes, *Nat. Synth.* **2022**, *1*, 475-486
- 20) Shuaishuai Wang, Tingrui Li, Chengyihan Gu, Jie Han, Chuan-Gang Zhao, Chengjian Zhu*, Hairen Tan and Jin Xie*, Decarboxylative Tandem C-N Coupling with Nitroarenes via SH₂ Mechanism, *Nat. Commun.* **2022**, *13*, 2432.
- 21) Chengyihan Gu, Shuaishuai Wang, Qingran Zhang and Jin Xie*, Visible-light-mediated amidation from carboxylic acids and tertiary amines via C-N cleavage, *Chem. Commun.* **2022**, *58*, 5873-5876.
- 22) Yijie He, Chaoyu Du, Jian Han, Jie Han, Chengjian Zhu and Jin Xie*, Manganese-Catalyzed Anti-Markovnikov Hydroarylation of Enamides: Modular Synthesis of Arylethylamines, *Chin. J. Chem.* **2022**, *13*, 1546-1552.
- 23) Chuan-Gang Zhao, Siyu Xia, Chenkun Wang, Wenliang Wang and Jin Xie*, Opportunities and Challenges of Visible Light-Driven Triple Synergistic Catalysis, *Chem Catal.* **2022**, *2*, 458-467.
- 24) Yantao Li, Qianzhen Shao, Hengchi He, Chengjian Zhu* Xiao-Song Xue* and Jin Xie*, Highly Selective Synthesis of All-Carbon Tetrasubstituted Alkenes by Deoxygenative Alkenylation of Carboxylic Acids, *Nat. Commun.* **2022**, *13*, 10.
- 25) Xiaopeng Wu†, Jie Han†, Siyu Xia, Weipeng Li*, Chengjian Zhu* and Jin Xie*, Decarboxylative Acylation of Carboxylic Acids: Reaction Investigation and Mechanistic Study, *CCS Chem.* **2021**, *3*, 2581-2593
- 26) Lili Zhang, Shuai Chen, Hengchi He, Weipeng Li, Chengjian Zhu* and Jin Xie*, Photoredox/Nickel-Catalyzed Hydroacylation of Ethylene with Aromatic Acids. *Chem. Commun.* **2021**, *57*, 9064-9067.
- 27) Yunyun Ning, Shuaishuai Wang, Muzi Li, Jie Han, Chengjian Zhu, Jin Xie*, Site-Specific Umpolung Amidation of Carboxylic Acids via Triplet Synergistic Catalysis, *Nat. Commun.* **2021**, *12*, 4637.
- 28) Muzi Li, Tao Liu, Jiajun Li, Hengchi He, Haotian Dai and Jin Xie*, Visible-Light-Mediated Deoxyalkynylation of Activated Tertiary Alcohols, *J. Org. Chem.* **2021**, *86*, 12386-12393
- 29) Kai Liu, Tingrui Li, Duan-Yang Liu, Weipeng Li, Jian Han, Chengjian Zhu, Jin Xie*, Dinuclear Gold-Catalyzed C-H Bond Functionalization of Cyclopropenes, *Sci. China Chem.* **2021**, *64*, 1958-1963.

- 30) Nian Li, Yunyun Ning, Xiaopeng Wu, Jin Xie,* Weipeng Li* and Chengjian Zhu*, A Highly Selective Decarboxylative Deuteration of Carboxylic Acids, *Chem. Sci.* **2021**, *12*, 5505-5510
- 31) Wenliang Wang, Chenglong Ji, Kai Liu, Chuangang Zhao, Weipeng Li, Jin Xie*, Dinuclear Gold Catalysis, *Chem. Soc. Rev.* **2021**, *50*, 1874-1912.
- 32) Sina Witzel, A. Stephen K. Hashmi, Jin Xie*, Light in Gold Catalysis, *Chem. Rev.* **2021**, *121*, 8868-8925.
- 33) Jie Dong,# Xiang-Ai Yuan,# Zhongfei Yan,# Liying Mu,# Junyang Ma, Chengjian Zhu, Jin Xie*, Manganese-Catalyzed Divergent Silylation of Alkenes, *Nat. Chem.* **2021**, *13*, 182-190.
- 34) Yantao Li, Wentao Xu, Chengjian Zhu*, Jin Xie*, Direct Deoxygenative Intramolecular Acylation of Biarylcarboxylic Acids, *Synlett* **2021**, *32*, 387-390.
- 35) Dongping Wang, Yijie He, Haotian Dai, Congcong Huang, Xiang-Ai Yuan, Jin Xie*, Manganese-Catalyzed Hydrocarbofunctionalization of Internal Alkenes. *Chin. J. Chem.* **2020**, *38*, 1497-1502.
- 36) Yubo Pang, Gengtu Liu, Congcong Huang, Xiang-Ai Yuan, Weipeng Li and Jin Xie*, A Highly Efficient Manganese-Catalyzed Selective Hydroarylation of Internal Alkynes, *Angew. Chem. Int. Ed.* **2020**, *59*, 12789-12794
- 37) Rehanguli Ruzi,# Kai Liu,# Chengjian Zhu, Jin Xie*, Upgrading Ketone Synthesis Direct from Carboxylic Acids and Organohalides, *Nat. Commun.* **2020**, *11*, 3312.
- 38) Jian Han, Jin Xie*, Tertiary Amine Synthesis by Radical Carbonyl Alkylative Amination, *Chem* **2020**, *6*, 1053-1055.
- 39) Wenliang Wang, Jin Xie*, Chiral Al-Complex Remote-Controlled Ni-Catalyzed Enantioselective Construction of Indenes, *Chin. J. Org. Chem.* **2020**, *40*: 1396-1397.
- 40) Wentao Xu, Muzi Li, Liancheng Qiao, Jin Xie*, Recent Advances of Dinuclear Nickel- and Palladium-Complexes in Homogeneous Catalysis, *Chem. Commun.* **2020**, *56*, 8524-8536.
- 41) Hengchi He, Jin Xie*, Manganese-Catalyzed Hydroarylation of Unactivated Alkenes, *Chin. J. Org. Chem.* **2020**, *40*: 3973-3975.
- 42) Yuxia Sun, Xiaoshan Li, Miao Yang, Wentao Xu, Jin Xie and Mengning Ding*, Highly Selective Electrocatalytic Oxidation of Benzyl C-H Using Water as Safe and Sustainable Oxygen Source, *Green Chem.* **2020**, *22*, 7543-7521.
- 43) Dongping Wang, Jie Dong, Wenjing Fan, Xiang-Ai Yuan, Jian Han, Jin Xie*, Manganese-Catalyzed Hydroarylation and Hydroalkenylation of Unsaturated Amides, *Angew. Chem. Int. Ed.* **2020**, *59*, 8430-8434.
- 44) Qiaobo Liao,#, Wentao Xu,#, Xin Huang, Can Ke, Qi Zhang, Kai Xi*, Jin Xie*, Donor-acceptor Type [4 + 3] Covalent Organic Frameworks: Sub-stoichiometric Synthesis and Photocatalytic Application, *Sci. China Chem.* **2020**, *63*, 707-714.
- 45) Congjun Zhu, Jie Dong, Xueting Liu, Liuzhou Gao, Yue Zhao, Jin Xie*, Shuhua Li*, and Chengjian Zhu*, Photoredox Controlled β -Regioselective Radical Hydroboration of Activated Alkenes with NHC-Boranes, *Angew. Chem. Int. Ed.* **2020**, *59*, 12817-12821.
- 46) Junyang Ma, Wentao Xu, Jin Xie*, Predictable Site-Selective Radical Fluorination of Tertiary Ethers, *Sci. China Chem.* **2020**, *63*, 187-191.
- 47) Wentao Xu, Wenliang Wang, Tao Liu, Jin Xie*, Chengjian Zhu*, Late-Stage Trifluoromethylthiolation of Benzylic C-H Bonds, *Nat. Commun.* **2019**, *10*, 4867.
- 48) Tao Liu, Chuanhua Qu, Jin Xie*, Chengjian Zhu*, Photoinduced Atom-Economical Iterative Hydrotrifluoromethylation of Terminal Alkynes and Remote C(sp³)-H Functionalization, *Chin. J. Org.*

Chem. **2019**, *39*, 1613-1622.

- 49) Kai Liu, Nian Li, Yunyun Ning, Chengjian Zhu, Jin Xie*, Gold-Catalyzed Oxidative Biaryl Cross-Coupling of Organometallics, *Chem* **2019**, *5*, 2718-2730.
- 50) Rehanguli Ruzi#, Junyang Ma#, Xiang-Ai Yuan#, Wenliang Wang, Shanshan Wang, Muliang Zhang, Jie Dai, Jin Xie* and Chengjian Zhu*, Deoxygenative Arylation of Carboxylic Acids via Aryl Migration, *Chem. Eur. J.* **2019**, *25*, 12724- 12729
- 51) Weipeng Li, Dandan Yuan, Guoqiang Wang, Yue Zhao, Jin Xie*, Shuhua Li*, Chengjian Zhu*, Cooperative Au/Ag-Dual Catalyzed Cross-Dehydrogenative Biaryl Coupling: Reaction Development and Mechanistic Insight, *J. Am. Chem. Soc.* **2019**, *141*, 3187-3197.
- 52) Muliang Zhang, Xiang-Ai Yuan, Chengjian Zhu, Jin Xie*, Deoxygenative Deuteration of Carboxylic Acids with D₂O, *Angew. Chem. Int. Ed.* **2019**, *58*, 312-316
- 53) Zhongfei Yan, Chengjian Zhu, Jin Xie*, Mn(I)-Catalyzed Selective Functionalization of Alkynes, *Synlett* **2019**, *30*, 124-128.
- 54) Jin Xie*, Kohei Sekine, Sina Witzel, Petra Kramer, Matthias Rudolph, Frank Rominger, A. Stephen K. Hashmi*, Light-Induced Gold-Catalyzed Hiyama Arylation: A Coupling Access to Briarylboronates, *Angew. Chem. Int. Ed.* **2018**, *57*, 16648-16653.
- 55) Zhongfei Yan, Xiang-Ai Yuan, Yue Zhao, Chengjian Zhu and Jin Xie*, Selective Hydroarylation of 1,3-Diynes Using a Dimeric Manganese Catalyst: Modular Synthesis of Z-Enynes, *Angew. Chem. Int. Ed.* **2018**, *57*, 12906-12910.
- 56) Muliang Zhang, Jin Xie*, Chengjian Zhu*, A General Deoxygenation Approach for Synthesis of Ketones from Aromatic Carboxylic Acids and Alkenes, *Nat. Commun.* **2018**, *9*, 3517.
- 57) Wentao Xu, Junyang Ma, Xiang-Ai Yuan, Jie Dai, Jin Xie*, Chengjian Zhu*, Synergistic Catalysis for the Umpolung Trifluoromethylthiolation of Tertiary Ethers, *Angew. Chem. Int. Ed.* **2018**, *57*, 10357-10361.
- 58) Nengneng Zhou, Xiang-Ai Yuan, Yue Zhao, Jin Xie* and Chengjian Zhu*, Synergistic Photoredox Catalysis and Organocatalysis for Inverse Hydroboration of Imines, *Angew. Chem. Int. Ed.* **2018**, *57*, 3990-3994.
- 59) Pan Xu, Weipeng Li, Jin Xie* and Chengjian Zhu*, Exploration of C-H Transformations of Aldehyde Hydrazones: Radical Strategies and Beyond, *Acc. Chem. Res.* **2018**, *51*, 484-495.
- 60) Weipeng Li, Wentao Xu, Jin Xie*, Shouyun Yu*, Chengjian Zhu*, Distal Radical Migration Strategy: An Emerging Synthetic Means, *Chem. Soc. Rev.* **2018**, *47*, 654-667.
- 61) Jian Cheng, Jin Xie,* Chengjian Zhu*, Relay Photocatalytic Cascade Reaction: Synthesis of Indolo[2,1-a]isoquinoline Derivatives via Double C(sp³)-H Bonds Functionalization, *Chem. Commun.* **2018**, *54*, 1655-1658.
- 62) Muliang Zhang, Rehanguli Ruzi, Nan Li, Jin Xie*, Chengjian Zhu*, Photoredox and Cobalt Co-catalyzed C(sp²)-H Functionalization/C-O Bond Formation for Synthesis of Lactones Under Oxidant- and Acceptor-Free Conditions, *Org. Chem. Front.* **2018**, *5*, 749-752.
- 63) Vanessa Weingand, Thomas Wurm, Vanessa Vethacke, Martin C. Dietl, Daniel Ehjeij, Matthias Rudolph, Frank Rominger, Jin Xie, A. Stephen K. Hashmi*, Intermolecular Desymmetrizing Gold-Catalyzed Yne-Yne Reaction of Push-Pull Diarylalkynes, *Chem. Eur. J.* **2018**, *24*, 3725-3728.
- 64) Vanessa Claus, Michael Schukin, Siegfried Harrer, Matthias Rudolph, Frank Rominger, Abdullah M. Asiri, Jin Xie, A. Stephen K. Hashmi*, Gold-Catalyzed Dimerization of Diarylalkynes: Direct Access to Azulenes, *Angew. Chem. Int. Ed.* **2018**, *57*, 12966-12970.
- 65) Jing Liu, Weipeng Li, Jin Xie*, Chengjian Zhu*, Photoredox 1,2-Dicarbonylfunctionalization of

Unactivated Alkenes via Tandem Radical Difluoroalkylation and Alkynyl Migration, *Org. Chem. Front.* **2018**, *5*, 797-800.

66) Jian Cheng, Yixiang Cheng, Jin Xie,* Chengjian Zhu*, Photoredox Divergent 1,2-Difunctionalization of Alkenes with Gem-dibromides, *Org. Lett.* **2017**, *19*, 6452-6455.

67) Jin Xie*, Hongming Jin, A. Stephen K. Hashmi, The Recent Achievements of Redox-Neutral Radical C-C Cross-Coupling Enabled by Visible-Light, *Chem. Soc. Rev.* **2017**, *46*, 5193-5203.

68) Jin Xie*, Matthias Rudolph, Frank Rominger and A. Stephen K. Hashmi*, Photoredox-Controlled Mono- and Di-Multifluoroarylation of C(sp³)-H Bonds with Aryl Fluorides, *Angew. Chem. Int. Ed.* **2017**, *56*, 7266–7270.

69) Zhongfei Yan, Jin Xie*, Chengjian Zhu*, Copper-Catalyzed Radical Silylarylation of Ynones with Silanes: En Route to Silyl-Functionalized Indenones, *Adv. Synth. Catal.* **2017**, *359*, 4153-4157.

70) Nengneng Zhou, Yixiang Cheng, Jin Xie*, Chengjian Zhu*, Harnessing sunlight without a photosensitizer for highly efficient consecutive [3+2]/[4+2] annulation to synthesize fused benzobicyclic skeletons, *Chem. Commun.* **2017**, *53*, 10707-10710.

71) Jing Liu, Jin Xie,* Chengjian Zhu*, Photoredox organocatalytic α -amino C(sp³)-H Functionalization for the synthesis of 5-membered heterocyclic γ -amino acid derivatives, *Org. Chem. Front.* **2017**, *4*, 2433-2436.

72) Sina Witzel, Jin Xie*, Matthias Rudolph, A. Stephen K. Hashmi*, Photosensitizer-Free, Gold-Catalyzed C-C Cross-Coupling of Boronic Acids and Diazonium Salts Enabled by Visible-Light, *Adv. Synth. Catal.* **2017**, *359*, 1522-1528.

73) Zhongyi Zeng, Hongming Jin, Jin Xie, Bing Tian, Matthias Rudolph, Frank Rominger, A. Stephen K. Hashmi*, α -Imino Gold Carbenes from 1,2,4-Oxadiazoles: Atom-Economical Access to Fully Substituted 4-Aminoimidazoles, *Org. Lett.* **2017**, *19*, 1020-1023.

74) Hongming Jin, Bin Tian, Xinglong Song, Jin Xie*, Matthias Rudolph, Frank Rominger and A. Stephen K. Hashmi*, Gold-Catalyzed Synthesis of Quinolines from Propargyl Silyl Ethers and Anthranils through the Umpolung of a Gold Carbene Carbon, *Angew. Chem. Int. Ed.* **2016**, *55*, 12688–12692.

75) Jin Xie, Jin-Tao Yu, Matthias Rudolph, Frank Rominger and A. Stephen K. Hashmi*, Monofluoroalkenylation of Dimethylamino Compounds through Radical–Radical Cross-Coupling, *Angew. Chem. Int. Ed.* **2016**, *55*, 9416–9421.

76) Jin Xie, Tuo Zhang, Fei Chen, Nina Mehrkens, Frank Rominger, Matthias Rudolph and A. Stephen K. Hashmi*, Gold-Catalyzed Highly Selective Photoredox C(sp²)-H Difluoroalkylation and Perfluoroalkylation of Hydrazones, *Angew. Chem. Int. Ed.* **2016**, *55*, 2934-2938.

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80) Hongming Jin, Long Huang, Jin Xie, Matthias Rudolph, Frank Rominger and A. Stephen K. Hashmi*, Gold-Catalyzed C-H Annulation of Anthranils with Alkynes: A Facile, Flexible, and

- Atom-Economical Synthesis of Unprotected 7-Acylindoles, *Angew. Chem. Int. Ed.* **2016**, *55*, 794-797.
- 81) Hongming Jin, Zhenbo Zhu, Ning Jin, Jin Xie, Yixiang Cheng and Chengjian Zhu*, CO-Enabled Rhenium Hydride Catalyst for Directed C(sp²)-H Bond Alkylation With Olefins, *Org. Chem. Front.* **2015**, *2*, 378-382.
- 82) Jin Xie, Shuai Shi, Tuo Zhang, Nina Mehrkens, Matthias Rudolph and A. Stephen K. Hashmi*, A Highly Efficient Gold-Catalyzed Photoredox C(sp³)-H Alkynylation of Tertiary Aliphatic Amines with Sunlight, *Angew. Chem. Int. Ed.* **2015**, *54*, 6046-6050.
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E) Patents:

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F) Academic presentation:

- 1) 2008.08, Invited Lecture for the 17th Youth Catalysis Conference (Lanzhou)
- 2) 2018.10, Invited Lecture of the 16th Jianghuai Forum (Suzhou)
- 3) 2018.10, Invited Lecture at the Suzhou Research Institute of Lanzhou Institute of Chemical Physics
- 4) 2018.10, Invited Lecture at the Institute of Advanced Chemical Manufacturing at Nanjing University of Technology
- 5) 2018.11, Invited Lecture at the 20th National organometallic chemistry Symposium of the Chinese Chemical Society (Nanjing)
- 6) 2018.11, Invited Lecture for the 2018 East China Catalytic Academic Seminar
- 7) 2018.11, Invited Lecture at The First International Synthetic Photochemistry Forum 2018, Invited Lecture
- 8) 2018.12, Invited Lecture at Northeast Forestry University
- 9) 2018.12, Invited Lecture at Harbin Institute of Technology
- 10) 2018.12, Invited Lecture at Heilongjiang University
- 11) 2019.04, Invited Lecture at the Second National Conference on Organic Free Radical Chemistry of the Chinese Chemical Society

- 12) 2019.07, Invited Lecture at Nanjing University of Traditional Chinese Medicine
- 13) 2019.08, Invited Lecture at the 16th National Symposium on Organic Synthetic Chemistry of the Chinese Chemical Society
- 14) 2019.08, Invited Lecture of the 16th National Annual Meeting of Applied Chemistry of the Chinese Chemical Society
- 15) 2019.09, Invited Lecture of the 11th National Organic Chemistry Academic Conference of the Chinese Chemical Society
- 16) 2019.09, Invited Lecture of the 16th National Homogeneous Catalysis Academic Conference of the Chinese Chemical Society
- 17) 2019.09, Invited Lecture of The First International Symposium on Molecular Recognition
- 18) 2019.10, Invited Lecture of Chem Reaxis Academic Symposium
- 19) 2019.11, Invited Lecture of South China University of Technology
- 20) 2019.11, Invited Lecture for the Yixian Precision Polymer Seminar at Sun Yat sen University
- 21) 2019.12, Invited Lecture at Jiaying University
- 22) 2019.12, Invited Lecture at East China Normal University
- 23) 2020.01, Invited Lecture at Nanjing Jiangbei New Area Pharmaceutical Valley's first "Dream Collection"
- 24) 2020.09, the Invited Lecture of the Organic Frontier Seminar of the Centennial Series of Academic Forums Celebrating the Chemistry of Nanjing University
- 25) 2020.09, Invited Lecture of the second Young Scholars Seminar on Optical Functional Materials of the Chinese Chemical Society
- 26) 2020.10, Invited Lecture for Organic Seminar at Taizhou University
- 27) 2020.12, Invited Lecture at Nanjing University Chinese Academy of Sciences
- 28) 2021.01, Invited Lecture for the Symposium on Frontiers and Development Trends of Organic Chemistry at Changzhou University
- 29) 2021.10, Invited Lecture for the Third Boron Chemistry Conference of the Chinese Chemical Society
- 30) 2021.11, Invited Lecture at Nanjing Normal University
- 31) 2021.11, Invited Lecture at Nanjing University of Technology
- 32) 2021.12, Invited Lecture at Chemical Reviews Thermal Talk Series Gold Chemistry: Invited Statement for 'Light in Gold Catalysis'
- 33) 2021.12, Invited Lecture at the 2021 Shanghai Molecular Therapy and New Drug Creation Engineering Technology Research Center
- 34) 2022.05, Postgraduate Lecture on Metal Organic Frontiers at West Lake University
- 35) 2022.07, Invited Lecture at Anhui University
- 36) 2022.09, Invited Lecture at Northeast Forestry University
- 37) 2022.09, Invited Lecture at 3M Shanghai China Co., Ltd. Annual Technical Forum
- 38) 2022.09, Invited Lecture at the 12th Annual Conference of Organic Chemistry
- 39) 2022.10, Invited Lecture at Synthetic Chemistry Summit Forum (Guilin)
- 40) 2023.03, Invited Lecture for Organic Seminar at Taizhou University
- 41) 2023.07, Invited Lecture for Chinese Fluorine Chemistry at Nanjing University
- 42) 2023.08, Invited Lecture for Homogeneous Catalysis at Shanxi Normal University
- 43) 2023.08, Invited Lecture at Xi'an Jiaotong University