



武汉大学

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Prof. Aiwen Lei

Editorial Board Member of *Chemistry – An Asian Journal*

International Advisory Board Member of *ChemSusChem*

Editorial Board Member of *Chinese Chemical Letters*

Editorial Advisory Board Member of *Current Organocatalysis*

Education

- Ph. D., Organic Chemistry, July, 2000, Shanghai Institute of Organic Chemistry, Chinese Academy of Science (CAS), China, Supervisor - Prof. Xiyan Lu
- B.S., Chemistry Education, July, 1995, Huaibei Normal University, Huaibei, Anhui Province, P. R. China

Research Interest

- Developing highly selective and efficient transition-metal-catalyzed C-C, and C-heteroatom bond formation in syntheses, e.g. oxidative coupling reactions, C-H bond functionalization
- Small molecule (such as CO, O₂, N₂O, H₂O₂, NH₃, ClO₂⁻, etc.) activation with an emphasis on applying such molecules in efficient synthetic methods
- Mechanistic studies including kinetic and active intermediate studies

Research Experience

- 2005.3- Professor of Wuhan University
- 2003.8-2005.3, Research Associate, Department of Chemistry, Stanford University, US, with Professor James, P. Collman
- 2000.8-2003.8 Postdoctoral Fellow, Department of Chemistry, the Pennsylvania State University, US, with Professor Xumu Zhang
- 1995.9-2000.7 Graduate Studies, Shanghai Institute of Organic Chemistry, CAS, China (SIOC), with Professor Xiyan Lu

Selected Awards

- Chinese Chemistry Society—Royal Society of Chemistry Young Chemist Award, 2014
- Guest Professor, University of Münster, 2013
- Asian Rising Stars (15th ACC Meeting), 2013
- Hubei Province Youth Medal, 2013
- NanKai University Lectureship on Organic Chemistry, 2013
- First-Class Natural Science Award of Hubei Province, 2012
- Eli Lilly Scientific Excellence Award in Chemistry, 2011
- Lectureship Award under the New Phase Asian Core Program on Cutting-Edge Organic Chemistry in Asia, Singapore, 2011

- Lectureship Awardee of Asian International Symposium for Outstanding Young Scientists, 2011
- Lectureship Award under the New Phase Asian Core Program on Cutting-Edge Organic Chemistry in Asia, Japan, 2011
- National Science Fund for Distinguished Young Scholars, China, 2010
- CAPA (Chinese-American Chemistry & Chemical Biology Professors Association) Distinguished Faculty Award, 2009
- Chinese Chemistry Society—John Wiley Young Chemist Award, 2008
- Royal Society Chemistry Journal Grant, 2008
- Synthesis & Synlett Journal Award, 2008
- Wuxi Pharmtech Biological & Organic Creative Award, 2007
- LuoJia Scholarship Professor (Wuhan University), 2007-
- Outstanding Young Scientist of Hubei Province, 2006

Publications during independent research

2015

- 1) Deng, Y.; Zhang, G. H.; Qi, X. T.; Liu, C.; Miller, T. Jeffrey; Kropf, A. Jeremy; Bunel, E. Emilio; Lan, Y.; Lei, A. W., Revealing the halide effect on the aerobic oxidation kinetics of Cu(I) to Cu(II). *Chem. Commun.* **2015**, *51*, 318-321.
- 2) Yi, H.; Jutand, A.; Lei, A. W., Evidence for the Interaction Between tBuOK and 1,10-Phenanthroline to form the 1,10-Phenanthroline Radical Anion: A Key Step for the Activation of Aryl Bromides by Electron Transfer. *Chem. Commun.* **2015**, *51*, 545 - 548.
- 3) Yuan, J. W.; Wang, J.; Zhang G. H.; Liu, C.; Qi, X. T.; Lan, Y.; Miller, T. Jeffrey; Kropf, A. Jeremy; Bunel, E. Emilio; Lei, A. W., Bimetallic Zinc Complex --- Active Species in Coupling of Terminal Alkynes with Aldehydes via Nucleophilic Addition/Oppenauer Oxidation. *Chem. Commun.* **2015**, *51*, 576 - 579.
- 4) Wu, K.; Huang, Z. L.; Liu, C.; Zhang, H.; Lei, A. W., Aerobic C-N Bond Activation: A Simple Strategy to Construct Pyridines and Quinolines. *Chem. Commun.* **2015**, *51*, *Just accepted*, DOI: 10.1039/C4CC08074B.
- 5) Cao, H.; Liu, D.; Liu, C.; Hu, X. Q.; Lei, A. W., Copper-Catalysed Oxidative Alkenylation of Thioethers via Csp³-H Functionalization. *Org. Biomol. Chem.* **2015**, *Just accepted*.
- 6) Liao, Z. X.; Yi, H.; Li, Z.; Fan, C.; Zhang, X.; Liu, J.; Deng, Z. X.; Lei, A. W., Copper-Catalyzed Radical Carboxylation: Alkylation and Alkoxylation of Styrenes. *Chem. Asian J.* **2015**, *10*, 96-99.

- 7) Wu Li, Zhengli Duan, Xueye Zhang, Heng Zhang, Mengfan Wang, Ru Jiang, Hongyao Zeng, Chao Liu and Aiwen Lei, From Anilines to Isatins: Palladium-Catalyzed Oxidative C–H Double Carbonylation. *Angew. Chem. Int. Ed.* **2015**, *54*, **ASAP**.
- 8) Ben Cheng, Hong Yi, Chuan He, Chao Liu, and Aiwen Lei, Revealing the Ligand Effect on Copper(I) Disproportionation via Operando IR Spectra. *Organometallics*. **2015**, *ASAP*.
- 9) Jianming Liu, Xin Zhang, Hong Yi, Chao Liu, Ren Liu, Heng Zhang, Kelei Zhuo, and Aiwen Lei. Chloroacetate-Promoted Selective Oxidation of Heterobenzyl Methylens under Copper Catalysis. *Angew. Chem. Int. Ed.* **2015**, *54*, **ASAP**.
- 10) Yuan, J. W.; Liu, C.; Lei, A. W., Construction of N-Containing Heterocycles via Oxidative Intramolecular N-H/X-H Coupling. *Chem. Commun.* **2015**, *51*, 1394 – 1409.
- 11) Shan Tang, Kun Liu, Chao Liu, and Aiwen Lei, Olefinic C-H functionalization through radical alkenylation. *Chem. Soc. Rev.* **2015**, *ASAP*, **DOI**: 10.1039/c4cs00347k.
- 12) Wang T., Chen S. T., Shao A. L., Gao, M., Huang, Y. F., and Lei, A., Silver-Mediated Selective Oxidative Cross-Coupling between C–H/P–H: A Strategy to Construct Alkynyl(diaryl)phosphine Oxide. *Org. Lett.* **2015**, *17*, 118–121.

2014

- 13) Zhang, G.H.; Yi, H.; Zhang, G.T.; Deng, Y.; Bai, R.P.; Zhang, H.; Miller, J.T.; Kropf, A.J.; Bunel, E.E.; Lei, A.W., Direct Observation of Reduction of Cu(II) to Cu(I) by Terminal Alkynes. *J Am Chem Soc* **2014**, *136*, 924-926
- 14) Liu, J.; Liu, Q.; Yi, H.; Qin, C.; Bai, R. P.; Qi, X. T.; Lan, Y.; Lei, A. W., Visible Light Mediated Decarboxylation / Oxidative Amidation of α -Keto Acids with Amines under Mild Conditions Using O₂. *Angew Chem Int Ed* **2014**, *53*, 502
- 15) Li, W.; Liu, C.; Zhang, H.; Ye, K.Y.; Zhang, G.H.; Zhang, W.Z.; Duan, Z.L.; You, S.L.; Lei, A.W., Palladium-Catalyzed Oxidative Carbonylation of N-allylamines for the synthesis of β -lactams. *Angew Chem Int Ed* **2014**, *53*, 2443
- 16) Wang, L.; Wang, Y.X.; Liu, C.; Lei, A.W., CO/C-H as the Acylative Reagent: A Palladium-Catalyzed Aerobic Oxidative Carbonylative Esterification of Alcohols. *Angew Chem Int Ed* **2014**, *53*, 5657
- 17) Meng, L. K.; Liu, C.; Zhang, W.; Zhou, C.; Lei, A. W., Palladium Catalysed β -Selective Oxidative Heck Reaction of Electronrich Olefin. *Chem Commun* **2014**, *50*, 1110
- 18) Liu, J.; Fan, C.; Yin, H.Y.; Qin, C.; Zhang, G.T.; Zhang, X.; Yi, H.; Lei, A.W., Synthesis of 6-acyl phenanthridines by oxidative radical decarboxylation/cyclization of α -oxocarboxylates and isocyanides. *Chem Commun* **2014**, *50*, 2145

- 19) Liu, D.; Liu, C.; Li, H.; Lei, A.W., Copper-Catalyzed Oxidative C-H/C-H Coupling between Olefins and Simple Ethers. *Chem Commun* **2014**, *50*, 3623
- 20) Liu, D.; Liu, C.; Lei, A. W., Nickel-catalyzed oxidative cross-coupling of arylboronic acids with olefins. *Pure Appl. Chem.* **2014**, *86*, 321–328
- 21) Tang, S.; Wu, Y.; Liao, W.Q; Bai, R.P.; Liu, C.; Lei, A.W., Revealing the Metal-like Behavior of Iodine: An Iodide-Catalysed Radical Oxidative Alkenylation. *Chem Commun* **2014**, *50*, 4496
- 22) Wang, J.; Liu, C.; Yuan, J.W.; Lei, A.W., Fe-Catalysed Oxidative C-H/N-H Coupling between Aldehydes and Simple Amides. *Chem Commun* **2014**, *50*, 4736
- 23) Liu, J. M.; Yi, H.; Zhang, X; Liu, C.; Liu, R.; Zhang, G.T.; Lei, A.W., *Chem. Commun.* **2014**, *50*, 7636
- 24) Zhang, G. H.; Li, J.; Deng, Y.; Miller, J.T.; Kropf, A.J.; Bunel, E.E.; Lei,A.W., Structure-Kinetic Relationship Study of Organozinc Reagents. *Chem Commun* **2014**, *50*, 8709
- 25) Zhou, L. L.; Tang, S.; Qi, X.T.; Lin, C.T.; Liu, K.; Liu, C.; Lan, Y.; Lei, A.W., Transition-Metal-Assisted Radical/Radical Cross-Coupling: A New Strategy to the Oxidative C(sp³)-H/N-H Cross-Coupling. *Org. Lett.*, **2014**, *16*, 3404
- 26) Gao, M.; Tian, J.; Lei, A.W., A Reagent-Free Oxidative Cyclization Approach to Indolizine Derivatives from α - Picoline Derivatives and Nitroolefins. *Chem Asian J* **2014**, *9*, 2068-2071
- 27) Shi, W.; Lei, A.W., 1,3-Diyne Chemistry: Synthesis and Derivations. *Tetrahedron Lett* **2014**, *55*, 2763
- 28) Lu, Q. Q.; Liu, C.; Peng, P.; Liu, Z. L.; Fu, L. J.; Huang, J. G.; Lei, A. W., Copper-Catalyzed Trifluoromethylation-Initiated Radical Oxidative Annulation toward Oxindoles. *Asian J Org Chem* **2014**, *3*, 273
- 29) Zhang, X.; Yi, H.; Liao, Z. X.; Zhang, G. T.; Fan, C.; Qin, C.; Liu, J.; Lei, A. W., Copper-catalysed direct radical alkenylation of alkyl bromides. *Org. Biomol. Chem.*, **2014**, *12*, 6790-6793.
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- 31) Tang, S.; Wu, X. D.; Liao, W. Q.; Liu, K.; Liu, C.; Luo, S. Z.; Lei, A. W., Synergistic Pd/Enamine Catalysis: A Strategy for the C-H/C-H Oxidative Coupling of Allylarenes with Unactivated Ketones. *Org. Lett.*, **2014**, *16*, 3584–3587
- 32) Lu, Q. Q.; Liu, C.; Huang Z. Y.; Ma, Y. Y; Zhang, J.; Lei, A. W., Relay Cooperation of K₂S₂O₈ and O₂ in Oxytrifluoromethylation of Alkenes Using CF₃SO₂Na. *Chem. Commun.*, **2014**, *50*, 14101-14104.
- 33) Liu, D.; Tang, S.; Yi, H.; Liu, C.; Qi, X. T.; Lan, Y.; Lei, A. W., Carbon-Centered Radical Addition to O=C of Amides or Esters as a Route to C-O Bond Formations. *Chem. Eur. J.* **2014**, *20*, 15605-15610.
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- 35) Yuan, J.; Ma, X.; Yi, H.; Liu, C.; Lei, A. W., I₂-Catalyzed Oxidative C(sp³)-H/S-H Coupling: Utilizing Alkanes and Mercaptans as the Nucleophiles. *Chem. Commun.*, **2014**, *50*, 14386-14389.
- 36) Yi, H.; Zhang, X.; Qin, C.; Liao, Z. X.; Liu, J.; Lei, A. W., Visible Light-Induced γ -Alkoxy nitrile Synthesis via Three-Component Alkoxy cyanomethylation of Alkenes. *Adv. Synth. Catal.* **2014**, *356*, 2873-2877.
- 37) Chen, Z. K.; Yan, Q. Q.; Yi, H.; Liu, Z. X.; Lei, A. W.; Zhang, Y. H., Efficient Synthesis of 1,2,3-Triazoles by Copper-Mediated C-N and N-N Bond Formation Starting From N-Tosylhydrazones and Amines. *Chem. Eur. J.* **2014**, *20*, 13692-13697.
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- 39) Guoting Zhang, Hong Yi, Hong Chen, Changliang Bian, Chao Liu, and Aiwen Lei, Trisulfur Radical Anion as the Key Intermediate for the Synthesis of Thiophene via the Interaction between Elemental Sulfur and NaOtBu. *Org. Lett.*, **2014**, *16*, 6156-6159.
- 40) Liu, C.; Liu, D.; Lei, A. W., Recent Advance of Transition-Metal Catalyzed Radical Oxidative Cross-Couplings. *Acc. Chem. Res.* **2014**, *47*, 3459–3470.

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- 41) He, C.; Zhang, G. H.; Ke, J.; Zhang, H.; Miller, J. T.; Kropf, A. J.; Lei, A. W., Labile Cu(I)-Catalyst/Spectator Cu(II)-Species in Copper-Catalyzed C-C Coupling Reaction: Operando IR, In situ XANES/EXAFS Evidence and Kinetic Investigations. *J Am Chem Soc* **2013**, *135*, 488
- 42) Lu, Q. Q.; Zhang, J.; Zhao, G. L.; Qi, Y.; Wang, H. M.; Lei, A. W., Dioxygen-Triggered Oxidative Radical Reaction: Direct Aerobic Difunctionalization of Terminal Alkynes towards β -Keto Sulfones. *J Am Chem Soc* **2013**, *135*, 11481
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- 45) Wang, J.; Liu, C.; Yuan, J. W.; Lei, A. W., Copper-Catalyzed Oxidative Coupling of Alkenes with Aldehydes: Direct Access to α , β -unsaturated Ketones. *Angew Chem Int Edit* **2013**, *52*, 2256

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- 47) Gao, M.; He, C.; Chen, H. Y.; Bai, R. P.; Cheng, B.; Lei, A. W., Synthesis of Pyrrole by Click Reaction: Silver-Catalyzed Cycloaddition of Terminal Alkynes with isocyanides. *Angew Chem Int Edit* **2013**, *52*, 6958
- 48) Huang, Z. L.; Jin, L. Q.; Feng, Y.; Peng, P.; Yi, H.; Lei, A. W., Iron-Catalyzed Oxidative Radical Cross-Coupling/Cyclization between Phenol and Olefin. *Angew Chem Int Edit* **2013**, *52*, 7151
- 49) Lu, Q. Q.; Zhang, J.; Wei, F. L.; Qi, Y.; Wang, H. M.; Liu, Z. L.; Lei, A. W., Dioxygen Activation by Sulfinic Acids: Direct Oxysulfonylation of Alkenes Leading to Secondary and Tertiary β -Hydroxysulfones. *Angew Chem Int Ed* **2013**, *52*, 7156
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- 51) Shi, R. Y.; Zhang, H.; Lu, L. J.; Chen, B. R.; Sha, Y. C.; Liu, C.; Lei, A. W., Palladium/Copper-Catalyzed Oxidative C-H Alkenylation / N-Dealkylative Carbonylation of Tertiary Anilines. *Angew Chem Int Edit* **2013**, *52*, 10582
- 52) Ozaki, K.; Zhang, H.; Ito, H.; Lei, A. W.; Itami, K., One-shot indole-to-carbazole π -extension by a Pd–Cu–Ag trimetallic system. *Chem Sci* **2013**, *4*, 3416
- 53) Zhu, L.M.; Lei, A.W.; Cao, Y.L.; Ai, X.P.; Yang, H.X., An all-organic rechargeable battery using bipolar polyparaphenylene as a redox-active cathode and anode. *Chem Commun* **2013**, *49*, 567
- 54) Liu, C.; Tang, S.; Lei, A. W., Oxidant Controlled Pd-Catalysed Selective Oxidation of Primary Alcohols. *Chem Commun* **2013**, *49*, 1324
- 55) Tang, S.; Liu, C.; Lei, A. W., Nickel-Catalysed Novel β γ -Unsaturated Nitrile Synthesis. *Chem Commun* **2013**, *49*, 2442
- 56) Meng, L. K.; Wu, K.; Liu, C.; Lei, A. W., Palladium-Catalysed Aerobic Oxidative Heck-type Alkenylation of Csp³-H for Pyrrole Synthesis. *Chem Commun* **2013**, *49*, 5853
- 57) Ke, J.; He, C.; Liu, H. Y.; Xu, H.; Lei, A. W., Alcohol Assisted C-C Bond Breaking: Copper-Catalyzed Deacetylative α -Arylation of β -keto Esters and Amides. *Chem Commun* **2013**, *49*, 6767
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- 64) Xi, Y. M.; Yi, H.; Lei, A. W., Synthetic Applications of Photoredox Catalysis with Visible Light. *Org Biomol Chem* **2013**, *11*, 2387
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- 2) Lei, A. W.; Zhang, H. *Transition Metal-Catalysed Direct Arylation of Unactivated Arenes with Aryl Halides in C-H and C-X Bond Functionalization: Transition Metal Mediation*, Ed. Ribas, X. RSC, **2013**
- 3) He, C.; Lei, A. W. *Application of Nontoxic Iron Salts in Oxidative C-C Coupling Reactions in Comprehensive Inorganic Chemistry II*, eds. Reedijk, J. and Poeppelmeier, K., Vol 6. Oxford: Elsevier; **2013**. p. 521-547.
- 4) Lei, A.W.; Liu, W. *Directed Aryl C-H Oxidations with Transition Metals*. In: Molander and Paul Knochel (eds.), *Comprehensive Organic Synthesis*, 2nd edition, Vol 7, Oxford: Elsevier; 2014. PP. 313-346

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- 2) Shen, Z. M.; Lu, X. Y.; Lei, A. W. *Tetrahedron* **2006**, *62*, 9237.
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Invited Lectures

- 1) 14th National Conference on Organometallic Chemistry, Suzhou, 2006, 10, 23
- 2) Hong Kong University of Science and Technology, Hong Kong, 2007, 2, 1
- 3) ACS National Meeting for Chicago, 2007, 3, 29
- 4) Merck, US, 2007, 3, 30
- 5) ACS Meeting, India, 2007, 4, 13
- 6) WuXi AppTec, Shanghai, 2007, 8, 17
- 7) 3rd Asian Symposium on Advanced Organic Synthesis, Kyoto, 2007, 11, 8
- 8) 7th Tateshina Conference on Organic Chemistry, Tateshina, Japan, 2007, 11, 9
- 9) Shenzhen, 2007, 12, 12
- 10) 2007 International Symposium on Catalysis and Fine Chemicals, Singapore, 2007, 12, 17
- 11) University of Illinois, US, 2008, 5, 14
- 12) Middle Atlantic Regional Meeting, New York, 2008, 5, 17
- 13) MIT, US, 2008, 5, 21
- 14) 3rd International Conference on Cutting-Edge Organic Chemistry in Asia, Hangzhou, 2008, 10, 19
- 15) 15th National Conference on Organometallic Chemistry, Nanjing, 2008, 10, 23
- 16) RSC, UK, 2008, 10, 26
- 17) 6th Jianghuai symposium on organic chemistry, Huaibei, 2008, 11, 8
- 18) Nankai University, Tianjin, 2008, 12, 5
- 19) Keda, 2009, 6, 2
- 20) The 5th SINO-US Symposium on Organic Chemistry, Lanzhou, 2009, 6, 30
- 21) 8th Mainland-Taiwan conference on catalysis, Lanzhou, 2009, 8, 10
- 22) 1st Wuhan-Hefei-Nanjing symposium of organic chemistry, Wuhan, 2009, 8, 16

- 23) 6th National Conference on Organic Chemistry, Xi'an, 2009, 8, 19
- 24) Chengdu, 2009, 9, 9
- 25) University of Vallodiode, Spain, 2009, 9, 22
- 26) Durham University, UK, 2009, 9, 24
- 27) York University, UK, 2009, 9, 25
- 28) Leibniz-Institut für Katalyse, German, 2009, 9, 28
- 29) Lonza Company, Switzerland, 2009, 9, 30
- 30) Renns University, France, 2009, 10, 5
- 31) LMU Munich, German, 2009, 10, 7
- 32) 5th Sino-Japanese Symposium on Organic Chemistry for Young Scientists, Chengdu, 2009, 10, 10
- 33) 11th National Conference on Homogeneous Coordination Catalysis, Changsha, 2009, 10, 17
- 34) 2nd Asian Conference on Coordination Chemistry, Nanjing, 2009, 11, 2
- 35) West Virginal University, USA, 2009, 11, 11
- 36) GSK, USA, 2009, 11, 17
- 37) Lonza, Guangzhou, 2009, 12, 9
- 38) Shanghai Institute of Organic Chemistry, CAS, Shanghai, 2009, 12, 14
- 39) Huazhong University of Science and Technology, Wuhan, 2010, 5, 12
- 40) Hunan Normal University, Changcha, 2010, 5, 17
- 41) 6th Sino-US Conference of Chemistry Professors, Hangzhou, 2010, 6, 15
- 42) 11th Tetrahedron Symposia, Beijing, 2010, 6, 22
- 43) 2010 Organometallic Chemistry Gordon Research Conference, US, 2010, 7, 11
- 44) Lanzhou Institute of Chemical Physics, CAS, Lanzhou, 2010, 7, 26
- 45) 3rd Sino-German Frontiers of Chemistry Symposium, Kloster Seon, Germany, 2010, 8, 14
- 46) Dalton Discussion 12: catalytic C-H and C-X bond activation, Keynote Leuture, Durham University, UK, 2010, 9, 13
- 47) University of Liverpool, Liverpool, UK, 2010, 9, 16
- 48) Sino-Japan, Tianjin, 2010,9,26
- 49) 4th International Forum on Homogeneous Catalysis and The First China-Canada Bilateral Symposium on Catalysis, Kunming, 2010,10,8
- 50) 2nd International Symposium on Organic Synthesis and Drug Development, Nanjing, 2010, 10, 16
- 51) 6th Bilateral Sino-Australia Organic Chemistry Symposium, Huangshan, 2010,10,19
- 52) 16th National Conference on Organometallic Chemistry, Wenzhou 2010, 10, 23
- 53) 11th International Symposium for Chinese Organic Chemists and 8th International Symposium for Chinese Inorganic Chemists, Taipei, 2010, 10, 25
- 54) East China Normal University, Shanghai, 2010, 11, 8
- 55) Shanghai University, Shanghai, 2010, 11, 8

- 56) Paris, France 2010,11,15
- 57) Lausanne 2010,11,23
- 58) Marseille, France 2010,11,25
- 59) Guangzhou, 2010,11,30
- 60) Mini-Symposium of Catalysis in Wuhan University, Wuhan, 2011, 1, 23
- 61) Shenzhen Graduate School of Peking University, Shenzhen, 2011, 4, 21
- 62) Hubei University, Wuhan, 2011, 4, 27
- 63) Jiangxi Normal University, Nanchang, 2011, 5, 3
- 64) BASF, New Jersey, 2011, 5, 9
- 65) Rutgers University, Rutgers, 2011, 5, 13
- 66) Argonne National Laboratory, 2011, 5, 17
- 67) Peking University, Beijing, 2011, 5, 27
- 68) School of Pharmaceutical Sciences, Wuhan University, Wuhan, 2011, 6, 7
- 69) Eli Lilly and Company, Shanghai, 2011, 6, 13
- 70) King Abdullah University of Science and Technology (KAUST), Saudi Arabia, 2011, 6, 25
- 71) 7th Sino-US Conference of Chemistry Professors, Guiyang, 2011, 6, 30
- 72) BIT's 2nd Annual World Congress of Catalytic Asymmetric Synthesis, Beijing, 2011, 8, 9
- 73) Lanzhou Institute of Chemical Physics, Lanzhou, 2011, 8, 12
- 74) 1st Symposium on “New Frontiers in Organic Chemistry: Towards Cleaner, Greener Chemical Processes”, Beijing, 2011, 9, 4
- 75) IME Boron XIV Conference, Canada, 2011, 9, 13
- 76) 12th National Conference of Homogeneous Catalysis, Chengdu, 2011, 10, 10
- 77) Zhejiang University of Technology, 2011, 10, 18,
- 78) The 7th National Conference of Organic Chemistry, Nanjing, 2011, 11, 13
- 79) 2nd International Conference on Green & Sustainable Chemistry, Singapore, 2011, 11, 15
- 80) South-Central University for Nationalities, Wuhan, 2011, 11, 24
- 81) The 9th National Conference on Physical Organic Chemistry, Shenzhen, 2011, 12, 3
- 82) 6th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-6), Asian Core Program (ACP), Hongkong, 2011, 12, 14
- 83) Jiangxi Normal University, Nanchang, 2011, 12, 20
- 84) Institute of Chemistry, CAS, Beijing, 2011, 12, 23
- 85) Technical Institute of Physics and Chemistry, CAS, 2011, 12, 23
- 86) Zhejiang University, 2012, 12, 27
- 87) Fujian Institute of Research on the Structure of Matter, 2011, 12, 28
- 88) 8th CRC International Symposium on Organometallics & Catalysis, Toronto, 2012, 2, 4
- 89) JSPS lecture, Nagoya University, Nagoya, 2012, 3, 2

- 90) JSPS lecture, Gakushuin University, Tokyo, 2012, 3, 5
- 91) JSPS lecture, Tokyo University of Science, Tokyo, 2012, 3, 6
- 92) JSPS lecture, Tokyo University, Tokyo, 2012, 3, 8
- 93) JSPS lecture, Riken, Tokyo, 2012, 3, 9
- 94) JSPS lecture, Kyoto University (Katsura Campus), Kyoto, 2012, 3, 12
- 95) JSPS lecture, Kyoto University (Uji Campus), Kyoto, 2012, 3, 13
- 96) JSPS lecture, Osaka University, Osaka, 2012, 3, 15
- 97) JSPS lecture, Okayama University, Okayama, 2012, 3, 16
- 98) JSPS lecture, Institute of Molecular Science, Nagoya, 2012, 3, 19
- 99) University of California, Riverside, 2012, 4, 20
- 100) Eli Lilly, Indiana, 2012, 5, 15
- 101) East China Normal University, Shanghai, 2012, 6, 22
- 102) Renns University, France, 2012, 6, 29
- 103) 15th International Congress on Catalysis, Munich, Germany, 2012, 7, 4
- 104) 10th National Conference on Organic Synthetic Chemistry, Changchun, 2012, 8, 2
- 105) Nanjing University, Nanjing, 2012, 9, 22
- 106) Nanjing Normal University, Nanjing, 2012, 9, 23
- 107) Jiangxi Normal University, Nanchang, 2012, 11, 13
- 108) Northwest A&F university, Xi'an, 2012, 11, 27
- 109) Northwest University, Xi'an, 2012, 11, 28
- 110) Shaanxi Normal University, Xi'an, 2012, 11, 28
- 111) Fourth Military Medical University, Xi'an, 2012, 11, 29
- 112) Hunan University, Changsha, 2012, 12, 1
- 113) Institute of Chemical Research of Catalonia, Spain, 2012, 12, 17
- 114) Leibniz-Institut für Katalyse, German, 2012, 12, 19
- 115) National University of Singapore, Singapore, 2013, 2, 21
- 116) Nanyang Technological University, Singapore, 2013, 2, 22
- 117) Central South University, Changsha, 2013, 3, 11
- 118) Mettler Toledo, Shanghai, 2013, 3, 13
- 119) Mettler Toledo, Beijing, 2013, 3, 15
- 120) Lanzhou Institute of Chemical Physics, Lanzhou, 2013, 3, 16
- 121) Hong Kong Polytechnic University, Hong Kong, 2013, 4, 29
- 122) City University of Hong Kong, Hong Kong, 2013, 4, 30
- 123) University of Hong Kong, Hong Kong, 2013, 5, 2
- 124) Northeastern Normal University, Jilin, 2013, 5, 30
- 125) South China University of Technology, Guangzhou, 2013, 6, 5
- 126) Henan Normal University, Xinxiang, 2013, 6, 13
- 127) The 9th Sino-US Chemistry Professors Conference, Chengdu, 2013, 7, 12
- 128) The 7th China-Korea Symposium on Organic Chemistry, Xi'an, 2013, 7, 15
- 129) OMCOS 17, Fort Collins, 2013, 8, 1

- 130) The 15th Asian Chemical Congress, Singapore, 2013, 8, 21
- 131) 2nd Canada-China Workshop on Green Chemistry and Catalysis, Canada, 2013, 9, 6
- 132) The 10th National Conference on Physical Organic Chemistry, Hefei, 2013, 9, 14
- 133) The 13th National Conference on Homogeneous catalysis, 2013, 9, 26
- 134) Beijing Symposium 2013 on “New Frontiers in Organic Chemistry: New Reagents, New Reactions”, Beijing, 2013, 10,10
- 135) The 8th National Organic Chemistry Conference, Chongqing, 2013, 10, 18
- 136) Illinois Institute of Technology, Chicago, 2013, 11, 4
- 137) The 11th Jianghuai Symposium on Organic Chemistry, Huaibei, 2013, 11, 10
- 138) Tsing Hua University, Beijing, 2013, 11, 15
- 139) Xiamen University, Xiamen, 2013, 11, 21
- 140) Nanjing University of Aeronautics and Astronautics, Nanjing, 2013, 11, 22
- 141) University of Heidelberg, 2013.11.27
- 142) BASF, Ludwigshafen, 2013.11.28
- 143) University of Aachen, Aachen, 2013. 11. 29
- 144) University of Münster, Münster, 2013. 12. 1
- 145) University of Göttingen, Göttingen, 2013. 12 .2
- 146) Leibniz-Institut für Katalyse, Rostock,2013.12.10
- 147) University of Münster, Münster, 2013. 12. 13
- 148) Leshan Normal University, Leshan, 2013.12.20
- 149) Nanchang University, Nanchang, 2014, 1, 3
- 150) National Chung Hsing University, Taichung, 2014, 2, 11
- 151) National Tsing Hua University, Hsinchu, 2014, 2, 12
- 152) National Taiwan University, 2014, 2, 14
- 153) Jiangxi Normal University, Nanchang, 2014, 2, 27
- 154) Nanchang University, Nanchang, 2014, 2, 28
- 155) 247 ACS meeting, 2014, 3, 18
- 156) National Chiao Tung University, Hsinchu, 2014, 5, 15
- 157) International Conference on Catalysis, Beijing, 2014, 6, 13
- 158) EuCheMS Conference on Organic Free Radicals, Prague, 2014, 6, 29
- 159) 2nd International Symposium on C-H bond activation, Rennes, France, 2014.7.2
- 160) 26th International Conference on Organometallic Chemistry (ICOMC2014), Sapporo, Japan, 2014, 7, 17
- 161) 41st International Conference on Coordination Chemistry, Singapore, 2014, 7, 21
- 162) 29th Chinses Chemical Society National Meeting, Beijing, 2014, 8, 4
- 163) International Conference on Physical Organic Chemistry, Ottawa, Canada, 2014.8.11
- 164) 18th national Conference on Organometallic Chemistry, Lanzhou, 2014, 8, 19
- 165) 8th Asian-European Symposium on Metal-Mediated Efficient Organic Synthesis,

- Turkey, 2014, 9, 7
- 166) 2nd International Conference on Global Trends in Chemical Sciences, Hong Kong, 2014, 10, 3
- 167) 13th International Symposium for Chinese Organic Chemists (ISCOC) and 10th International Symposium for Chinese Inorganic Chemists (ISCIC), Xiamen, 2014, 12, 19