

Xiaodong Michael Shi

Department of Chemistry
University of South Florida
Tampa, FL 33620
Website: <http://xmshi.myweb.usf.edu>

Phone: 813-974-7249
Fax: 813-974-3203
Email: xmshi@usf.edu

Education: June 2002 - March 2005 **Postdoctoral Research Associate**
University of California, Berkeley
Mentors: Dr. Paul Bartlett, Dr. Dean Toste
Aug. 1998 - May 2002 **Ph.D.** Department of Chemistry
University of Maryland, College Park
Mentor: Dr. Jeffery T. Davis
Sept. 1994 - July 1997 **MS**, Department of Chemistry
Nankai University, China
Mentor: Professor Lunzu Liu
Sept. 1990 - July 1994 **BS**, Department of Chemistry
Nankai University, China

Professional Experience:

August 2015 - present Associate Professor
Department of Chemistry
University of South Florida
June 2011 - August 2015 Associate Professor
Director of Graduate Study
Bennett Department of Chemistry
West Virginia University
Aug. 2005 - May 2011 Assistant Professor
Bennett Department of Chemistry
West Virginia University
April 2005 - July 2005 Platform Research Scientist
General Electric Advanced Material
June 2002 - March 2005 Postdoctoral Research Associate
University of California, Berkeley

Publications:

Independent research (since 2005):

- (72) Peng, H.; Akhmedov, N. G.; Liang, Y.; Jiao, N.*; Shi, X.* "Synergistic Gold and Iron Dual Catalysis: Preferred Radical Addition toward Vinyl-Gold Intermediate over Alkene" *J. Am. Chem. Soc.* **2015**, *137*, 8912-8915.
- (71) Cai, R.; Lu, M.; Aguilera, E. Y.; Xi, Y.; Akhmedov, N. G.; Petersen, J. L.; Chen, H.*; Shi, X.* "Ligand-Assisted Gold-Catalyzed Cross-Coupling with Aryldiazonium Salts: A Case of External Oxidant Free Redox Gold Catalysis" *Angew. Chem. Int. Ed.* **2015**, *54*, 8772-8776.

- (70) Ye, X.; Petersen, J. L.; Shi, X.* "Nickel-Catalyzed Directed Sulfonylation of sp² and sp³ C-H Bonds" *Chem. Commun.* **2015**, *51*, 7863 - 7866.
- (69) Shi, Y.; Ye, X.; Gu, Q.; Shi, X.*; Song, Z.* "Facile Synthesis and Stereo-Resolution of Chiral 1,2,3-Triazole" *Org. Biomol. Chem.* **2015**, *13*, 5407-5411.
- (68) Dong, B.; Su, Y.; Ye, X.; Petersen, J. L.; Shi, X.* "Synthesis and Characterization of Fluorescent-Active Triazole-Gold Complexes" *Sci. China Chem.* **2015**, ASAP.
- (67) Zhang, Y.; Ye, X.; Petersen, J. L.; Li, M.*; Shi, X.* "Synthesis and Characterization of Bis-N-2-Aryl Triazole as Fluorophore" *J. Org. Chem.* **2015**, *80*, 3664–3669.
- (66) Gao, W.; Ca, R.; Pham, T.; Forrest, K. A.; Hogan, A.; Nugen, P.; Williams, K.; Wojtas, L.; Luebke, R.; Weseliński, L. J.; Zaworotko, M. J.; Space, B.; Chen, Y.; Eddaoudi, M.*; Shi, X.*; Ma, S.* "Remote Stabilization of Copper Paddlewheel Based Molecular Building Blocks in Metal Organic Frameworks" *Chem. Mater.* **2015**, *27*, 2144-2151.
- (65) Su, Y.; Petersen, J. L.; Gregg, T. L.; Shi, X.* "Ambient Benzotriazole Ring Opening through Intermolecular Radical Addition to Vinyltriazole" *Org. Lett.* **2015**, *17*, 1208-1211.
- (64) Motika, S. E.; Wang, Q.; Ye, X.; Shi, X.* "Ambient Synthesis of Dienals via Triazole-Au and Amine Catalysis Relay" *Org. Lett.* **2015**, *17*, 290-293.
- (63) Cai, R.; Yan, W.; Bologna, M. G.; de Silva, K.; Finklea, H. O.; Petersen, J. L.; Shi, X. "Synthesis and Characterization of N-2-Aryl-1,2,3-Triazole Based Iridium Complexes as Photocatalysts with Tuneable Photoredox Potential " *Org. Chem. Front.* **2015**, *2*, 141-144.
- (62) Peng, H.; Xi, Y.; Ronaghi, N.; Dong, B.; Akhmedov, N. G.; Shi, X.* "Gold-Catalyzed Oxidative Cross-Coupling of Terminal Alkynes: Selective Synthesis of Unsymmetrical 1,3-Diynes" *J. Am. Chem. Soc.* **2014**, *136*, 13174-13177.
- (61) Ye, X.; Shi, X.* "Palladium Catalyzed Aerobic Oxidative C-H Olefination with Removable 1, 2, 3-Triazole Directing Group" *Org. Lett.* **2014**, *16*, 4448-4451.
- (60) Xi, Y.; Su, Y.; Yu, Z.; Dong, B.; McClain, E. J.; Lan, Y.*; Shi, X.* "Chemoselective Carbophilic Addition of α -Diazoesters through Ligand-Controlled Gold Catalysis " *Angew. Chem. Int. Ed.* **2014**, *53*, 9975-9979.
- (59) Senty, T. R.; Yalamanchi, M.; Zhang, Y.; Cushing, S. K.; Seehra, M. S.; Shi, X.; Bristow, A. D.* "Photoluminescence spectroscopy of YVO₄:Eu³⁺ nanoparticles with aromatic linker molecules: a precursor to biomedical functionalization" *J. Appl. Phys.* **2014**, *115*, 163107.
- (58) Feng, P.; Sun, X.; Su, Y.; Li, X.; Zhang, L.; Shi, X.*; Jiao, N.* "Ceric Ammonium Nitrate (CAN) Catalyzed Modification of Ketones via Two C-C Bond Cleavages with the Retention of the Oxo-Group" *Org. Lett.* **2014**, *16*, 3388-3391.
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- (56) Cai, R.; Dawei Wang, D.; Chen, Y.; Yan, W.; Geise, N. R.; Sharma, S.; Li, H.; Petersen, J. L.; Li, M.; Shi, X.* "Facile Synthesis of Fluorescent Active Triazapentalene through Gold-Catalyzed Triazole-Alkyne Cyclization" *Chem. Commun.* **2014**, *50*, 7303-7305.
- (55) Su, Y.; Zhang, Y.; Akhmedov, N. G.; Petersen, J. L.; Shi, X.* "Ambient Intermolecular [2 + 2] Cycloaddition: An Example of Carbophilicity and Oxophilicity

- Competition in Au/Ag Catalysis" *Org. Lett.* **2014**, *16*, 2478-2481.
- (54) Wang, Q.; Motika, S. E.; Akhmedov, N. G.; Petersen, J. L.; Shi, X.* "Synthesis of Cyclic Amine Borane Through Triazole-Gold(I) Catalyzed Alkyne Hydroboration" *Angew. Chem. Int. Ed.* **2014**, *53*, 5418-5422.
- (53) Xi, Y.; Dong, B.; McClain, E. J.; Wang, Q.; Gregg, T. L.; Akhmedov, N. G.; Petersen, J. L.; Shi, X.* "Gold-Catalyzed Intermolecular C-S Bond Formation: Efficient Synthesis of α -Substituted Vinyl Sulfones" *Angew. Chem. Int. Ed.* **2014**, *53*, 4657-4661.
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- (51) Xi, Y.; Wang, Q.; Su, Y.; Li, M.*; Shi, X.* "Quantitative Kinetic Investigation of Triazole-Gold(I) Complex Catalyzed [3,3]-Rearrangement of Propargyl Ester" *Chem. Commun.* **2014**, *50*, 2158-2160.
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- (49) Chen, Y.*; Zhou, S.; Ma, S.; Liu, W.; Pan, Z.; Shi, X.* "A facile synthesis of 5-amino-[1,2,3]triazolo[5,1-a]isoquinoline derivatives through copper-catalyzed cascade reactions" *Org. Biomol. Chem.* **2013**, *11*, 8171-8174.
- (48) Gao, W.; Cai, R.; Meng, L.; Wojtas, L.; Zhou, W.; Yildirim, T.; Shi, X.*; Ma, S.* "Quest for a highly connected robust porous metal-organic framework on the basis of a bifunctional linear linker and a rare heptanuclear zinc cluster" *Chem. Commun.* **2013**, *49*, 10516-10518.
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- (20) Zhong, C.; Gautam, L. N. S.; Petersen, J. L.; Akhmedov, N.; Shi, X.* "Concise Asymmetric Synthesis of Fully Substituted Isoxazoline-N-Oxide through Lewis Base Catalyzed Nitroalkene Activation" *Chem. Eur. J.* **2010**, *16*, 8605-8609.
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- (13) Chen, Y.; Zhong, C.; Sun, X.; Akhmedov, N.; Petersen, J. L.; Shi, X. " One-pot cascade Michael–Michael–Aldol condensation for diastereoselective synthesis of nitro-substituted cyclohexanes" *Chem. Commun.* **2009**, 5150-5152.
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- NH-triazole-Bound Rhodium(I) Complexes: Substituted-Group-Controlled Regioselective Coordination" *Organometallic* **2009**, *28*, 2352-2355.
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Prior to WVU:

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- (1) **Shi, X. D.**; Cao, R. Z.; Liu, L. Z.; *Chin. Chem. Lett.*, **1994**, 5, 815-816.

Honors and Awards:

- NSF Career award (2009)
- Outstanding Faculty Award, Department of Chemistry, West Virginia University (2009, 2011)
- Outstanding Research Assistant Awards from University of Maryland (2002)