Curriculum Vitae

Yu Jiang

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Personal Information

Gender: Male Place of Birth: Anhui province, China Date of Birth: 10/09/1991 Nationality: P. R. China

Education

 2007.09 - 2011.06: AnHui University of Technology, Maanshan, Anhui provience, P. R. China Degree: Bachelor of Engineering degree in Applied Chemistry
2011.09 - 2011.12: East China University of Science and Technology, Shanghai, P. R. China 2012.01 - 2016.07: Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, P. R. China Degree: Doctor of Engineering degree in Applied Chemistry Advisor: Min Shi
2016.11 - present: King Abdullah University of Science and Technology (KAUST), Thuwal 23955-690, Kingdom of Saudi Arabia Position: Postdoctoral Fellow Advisor: Nikos Hadjichristidis

Honors

- ▶ High level paper award of ECUST , 2015
- HuaYi Corporation Scholarship, 2015

Research Experience

Mainly focus on the organic synthesis methodology (2011.09 - 2016.07)

- Developed a novel method to construct the asymetric spirooxindole derivatives, revealed the potential useful biological activity by MTT assays.
- Developed a new selective gold(I)-catalyzed intramolecular hetero-cyclization of propargylic thiourea, revealed the competitive different gold activation modes in these cyclization processes by mechanistic investigation.
- Developed facile methods to synthesize a series of heteroatom substituted isoquinoline and tetrahydropyridine derivatives.

Publications

➢ Jiang, Y.; Pei, C.-K.; Du, D.; Li, X.-G.; He, Y.-N.; Xu, Q.*; Shi, M.* Enantioselective Synthesis of Spirooxindoles: Asymmetric [3+2] Cycloaddition of (3-Isothiocyanato)oxindoles with Azodicarboxylates. *Eur. J. Org. Chem.* 2013, 7895-7901.



▶ **Jiang, Y.**; Tang, X.-Y.*; Shi, M.* A Rh-catalyzed 1,2-Sulfur Migration/aza-Diels-Alder Cascade Initiated by Aza-vinyl Carbenoids from Sulfur-tethered *N*-Sulfonyl-1,2,3-triazoles. *Chem. Commun.* **2015**, *51*, 2122-2125.

➢ Jiang, Y.; Wei, Y.; Tang, X.-Y.*; Shi, M.* Gold(I)-Gatalyzed Selective Heterocyclization of Propargylic Thioureas: Mechanistic Study of Competitive Gold-Activation Mode. *Chem. Eur. J.* 2015, *21*, 7675-7681.

▶ Jiang, Y.; Sun, R.; Wang, Q.; Tang, X.-Y.*; Shi, M.* Cyclization of Sulfide, Ether or Tertiary Amine-Tethered *N*-Sulfonyl-1,2,3-Triazoles: A Facile Synthetic Protocol for 3-Substituted Isoquinolines or Dihydroisoquinolines. *Chem. Commun.* **2015**, *51*, 16968-16971.

Jiang, Y.; Sun, R.; Tang, X.-Y.*; Shi, M.* Recent Advances in the Synthesis of Heterocycles and Related Substances Based on Rhodium-Aza-Vinyl Carbenoid from *N*-Sulfonyl-1,2,3-trizoles. *Chem. Eur. J.* 2016, 22, DOI: 10.1002/chem.201601703.

▶ Jiang, Y.; Wang, Q.; Sun, R.; Tang, X.-Y.*; Shi, M.* Base-induced Synthesis of *N*-Dialkylaminomethyl-2*H*-1,2,3-triazoles from *N*-Sulfonyl-1,2,3-trizoles. *Org. Chem. Front.* **2016**, *3*, 744-748.

> Pei, C.-K.; **Jiang, Y.**; Wei, Y.*; Shi, M.* Enantioselective Synthesis of Highly Functionalized Phosphonate-Substituted Pyrans or Dihydropyrans Through Asymmetric [4+2] Cycloaddition of β ,γ-Unsaturated α -Ketoesters with Allenic Esters. *Angew. Chem. Int. Ed.* **2012**, *51*, 11328-11332.

> Pei, C.-K.; **Jiang, Y.**; Shi, M.* Synthesis of Optically Active Dihydropyrans from Asymmetric [4+2] Cycloaddition of β ,γ-Unsaturated α -Ketoesters with Allenic Esters. *Org. Biomol. Chem.* **2012**, *10*, 4355-4361.

> Pei, C.-K.; **Jiang, Y.**; Shi, M.* Phosphorus-Containing Lewis Base Catalyzed Cascade Reactions of Isatin-Derived Oximes with Allenic Esters and Further Transformations. *Eur. J. Org. Chem.* **2012**, 4026-4216.

➢ Du, D.; Jiang, Y.; Xu, Q.*; Shi, M.* Enantioselective Construction of Spirooxindole Derivatives: Asymmetric [3+2] Cyclization of Isothiocyanatooxindoles with Allenic Esters or 2-Butynedioic Acid Diesters. Adv. Synth. Catal. 2013, 355, 2249-2256.

Du, D.; Jiang, Y.; Xu, Q.*; Tang, X.-Y.; Shi, M.* Enantioselective [3+2] Cyclization of 3-Isothiocyanato Oxindoles with Trifluoromethylated 2-Butenedioic Acid Diesters. *ChemCatChem* 2015, 7, 1366-1371.

➢ Du, D.; Jiang, Y.; Xu, Q.*; Tang, Shi, M.* Enantioselective Synthesis of Spirooxindole Enols: Regioselective and Asymmetric [3+2] Cyclization of 3-Isothiocyanato Oxindoles with Dibenzylidene Ketones. ChemistryOPEN 2016, 5, 311-314.

Sun, R.; Jiang, Y.; Tang, X.-Y.*; Shi, M.* Rhodium(II)-Catalyzed and Thermally Induced Intramolecular Migration of *N*-Sulfonyl-1,2,3-triazoles: New Approaches to 1,2-Dihydroisoquinolines and 1-Indanones. *Chem. Eur. J.* 2016, 22, 5727-5733.

Liu, H.-L.; Jiang, Y.; Tang, X.-Y.*; Shi, M.* A New Method to Access Triazole-fused Spiro-guanidines from the Reaction of Isothiocyanates Tethered N-Sulfonyl-1,2,3-triazoles and Amines. Org. Chem. Front. 2016, 3, 1447-1451.

➢ Wang, Q.; Jiang, Y.; Tang, X.-Y.*; Shi, M.* Gold-Catalyzed Fluorination-Hydration: Synthesis of -Fluorobenzofuranones from 2-Alkynylphenol Derivatives. *Chem. Eur. J.* 2016, 22, 14739-14745.