## **Author Profile**



Z.-J. Shi

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Construction of Substituted Benzene Rings by Palladium-Catalyzed Direct Cross-Coupling of Olefins: A Rapid Synthetic Route to 1,4-Naphthoquinone and Its Derivatives": P. Hu, S. Huang, J. Xu, Z.-J. Shi, W. Su, Angew. Chem. 2011, 123, 10100-10104; Angew. Chem. Int. Ed. 2011, 50, 9926-9930.



The work of Z.-J. Shi has been featured on the inside cover of Angewandte Chemie:

"Multiple C—H Activations to Construct Biologically Active Molecules in a Process Completely Free of Organohalogen and Organometallic Components": B. Li, S. Tian, Z. Fang, Z.-J. Shi, Angew. Chem. 2008, 120, 1131–1134; Angew. Chem. Int. Ed. 2008, 47, 1115–1118.

## Zhang-Jie Shi

**Date of birth:** July 10, 1974

**Position:** Professor of Organic Chemistry, Peking University (China)

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**Education**: 1992–1996 BS, East China Normal University, Shanghai (China) 1996–2001 PhD with Professor Shengming Ma, Shanghai Institute of Organic Chemistry,

Chinese Academy of Sciences, Shanghai

2001-2002 Postdoctoral fellow with Professor Gregory L. Verdine, Harvard University,

Cambridge (USA)

2002–2004 Postdoctoral fellow with Professor Chuan He, University of Chicago (USA) **2006** Synlett/Synthesis Journal Award; **2008** CCS-John Wiley Excellent Chemistry Award; **2008** 

The First Rank Fok Ying Tung Education Foundation Award; 2009 Distinguished Young Investigator Foundation (sponsored by The National Natural Science Foundation of China);

**2011** Tetrahedron Young Investigator Award

Current research interests:

E-mail:

Awards:

Our research interests are focused on efficient and economic synthetic methodologies as well as understanding the intrinsic properties and reactivities of inert bonds to meet the requirements of green and sustainable development. We have made significant contributions in the field of C–O activation and C–H activation. With our efforts, invaluable and easily available phenols and arenes are directly applied as starting materials in organic synthesis. Another aim of our research group is to explore the potential of small molecules, for example, CO<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub>, etc. in

organic synthesis.

**Hobbies:** Hiking, traveling, reading, and sports

**I like refereeing because** ... I learn about the latest progress in the research field much earlier than others.

The greatest scientific advance in the next decade will be ... clothes that can perform photosynthesis.

The most important thing I learned from my parents is ...to give enough freedom to their kids.

n my opinion, the word "scientist" describes ... the group of people who can think about normal things in extraordinary ways.

My best investment was ... to devote all my energy to learning about chemistry when I was young.

My secret/not-so-secret passion is ...to be a "chemical dressmaker", that is, to cut and sew any bonds at our convenience.

My worst nightmare is ... that the research we devoted our full energy to is published by someone else first.

The best advice I have ever been given is ... "try to be a beautiful rose in a well-known garden".

## My 5 top papers:

- "Suzuki-Miyaura Coupling Reaction by Pd<sup>II</sup>-Catalyzed Aromatic C-H Bond Activation Directed by an N-Alkyl Acetamino Group": Z. Shi, B. Li, X. Wan, J. Cheng, Z. Fang, B. Cao, C. Qin, Y. Wang, Angew. Chem. 2007, 119, 5650-5654; Angew. Chem. Int. Ed. 2007, 46, 5554-5558. (Aryl C-Hs act as electrophiles to construct biaryls with aryl boronic acids under Pd catalysis.)
- "Multiple C-H Activations to Construct Biologically Active Molecules in a Process Completely Free of Organohalogen and Organometallic Components": B. Li, S. Tian, Z. Fang, Z.-J. Shi, Angew. Chem. 2008, 120, 1131-1134; Angew. Chem. Int. Ed. 2008, 47, 1115-1118. (Organic compounds are obtained by cross-dehydrogenative arylation (CDA) and sequential multiple C-H transformation without the use of organohalides and organometallic reagents.)
- 3. "Biaryl Construction via Ni-Catalyzed C-O Activation of Phenolic Carboxylates": B. Guan, Y. Wang, B. Li, D. Yu, Z.-J. Shi, *J. Am. Chem. Soc.* **2008**, *130*, 14468–14470. (Aryl acetates/carboxylates act as electrophiles in cross-coupling reactions with Ni catalysis.)
- "An efficient organocatalytic method for constructing biaryls through aromatic C-H activation": C.-L. Sun, H. Li, D.-G. Yu, M. Yu, X. Zhou, X.-Y. Lu, K. Huang, S.-F. Zheng, B.-J. Li, Z.-J. Shi, *Nat. Chem.* 2010, 2, 1044–1049. (Transition-metal-free synthesis of biaryls from arenes and aryl halides.)
- "Rhodium-Catalyzed Direct Addition of Aryl C-H Bonds to N-Sulfonyl Aldimines": Y. Li, B.-J. Li, W.-H. Wang, W.-P. Huang, X.-S. Zhang, K. Chen, Z.-J. Shi, Angew. Chem. 2011, 123, 2163–2167; Angew. Chem. Int. Ed. 2011, 50, 2115–2119. (Successful studies on aryl C-H addition to C=N.)

DOI: 10.1002/anie.201105838

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