

# Curriculum Vitae

## Personal Information:

**Name:** De Wang

**Gender:** Male

**Date of Birth:** 20/12/1986

**Place of Birth:** Chu Zhou City, Anhui province, China

**Nationality:** P. R. China



**Address:** King Abdullah University of Science and Technology (KAUST), Building 5, Level 4, Room 4750, Thuwal 23955-690, Kingdom of Saudi Arabia.

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## Education:

**09/2004-07/2008:** Department of Chemistry, Lu Dong University, Yantai, P. R. China

**Degree:** B. S. Major in Chemistry

**09/2009-11/2010:** East China University of Science and Technology

**11/2010-07/2014:** Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, P. R. China.

**Degree:** Ph. D. Major in Organic Chemistry

**Advisor:** Professor Min Shi (0086-021-54925137)

**09/2014-present:** King Abdullah University of Science and Technology (KAUST)

**Position:** **Postdoctoral Fellow**

**Advisor:** Nikos Hadjichristidis

## Research Field:

- (a) Nickel(II)-catalyzed asymmetric  $\alpha$ -Chlorination of 3-Substituted Oxindoles.
- (b) Multifunctional thiourea-phosphine-catalyzed asymmetric  $SN_2'$ - $SN_2'$  allylic substitution of Morita-Baylis-Hillman (MBH) adducts.
- (c) Phosphine-catalyzed asymmetric [3+2] annulation of allenolates.
- (d) New method to synthesis of heterocyclic compounds.
- (e) Borane-initiator polymerization and new polymerization reaction

### **Honors:**

2012-High level paper award of ECUST;

2012-(Cheng Siwei) Honorary president Award.

2013-National Graduate Scholarship.

### **Special Skills:**

- Familiar with a wide range of analytical instruments, including NMR, IR, HPLC and polarimeter
- Working knowledge of computers and related chemical software
- Initiative, independent, diligent, good communication skill and strong team spirit
- Language: Chinese(native), English(CET-6)

### **Publications:**

1. Axially chiral BINIM and Ni(II)-catalyzed asymmetric chlorination of 3-substituted oxindoles  
**Wang, D.;** Jiang, J.-J.; Zhang, R.; Shi, M. *Tetrahedron: Asymmetry*, **2011**, 1133-1141
2. Construction of adjacent spiro-quaternary and tertiary stereocenters through phosphine-catalyzed asymmetric [3+2] annulation of allenates with alkylidene azlactones  
**Wang, D.;** Wei, Y.; Shi, M. *Chem. Commun.*, **2012**, 48, 2764-2766.
3. Chiral phosphine-catalyzed asymmetric allylic alkylation of 3-substituted benzofuran-2(3H)-ones or oxindoles with Morita–Baylis–Hillman carbonates  
**Wang, D.;** Yang, Y.-L.; Jiang, J.-J.; Shi, M. *Org. Biomol. Chem.*, **2012**, 10, 7158-7166.
4. Highly Efficient Construction of Trifluoromethylated Heterocycles: [3+2] Annulation of N, N'-Cyclic or C, N-Cyclic Azomethine Imines with Trifluoromethyl-Containing Electron Deficient Olefins  
**Wang, D.;** Deng, H.-P.; Wei, Y.; Xu, Q.; Shi, M. *Eur. J. Org. Chem.* **2013**, 401-406.
5. Synthesis of Highly Functionalized Aminoindolizines via TiCl<sub>4</sub> Mediated Cycloisomerization and Phosphine-Catalyzed *aza*-Michael Addition Reactions  
**Wang, D.;** Wei, Y.; Shi, M. *Asian. J. Org. Chem.* **2013**, 2, 480-485. (Invited)
6. Facile Synthesis of 2-pyrazolines and  $\alpha,\beta$ -Diamino Ketones via Regioselective Ring-opening

of Hydrazone-tetramerized Aziridines

Zhang, Z.; **Wang, D.**; Wei, Y.; Shi, M.\* *Chem. Commun.* **2012**, 48, 9607-9609.

7. Chiral Multifunctional Thiourea-Phosphine-Catalyzed Asymmetric [3+2] Annulation of Morita-Baylis-Hillman Carbonates with Maleimides  
Deng, H.-P.; **Wang, d.**; Wei, Y.; Shi, M. *Beilstein J. Org. Chem.* **2012**, 8, 1098-1104.  
(Invited)
8. Axially Chiral C<sub>2</sub>-Symmetric N-Heterocyclic Carbene (NHC) Palladium Complex-Catalyzed Asymmetric Fluorination and Amination of Oxindoles  
Zhang, R.; **Wang, D.**; Xu, Q.; Jiang, J.-J.; Shi, M. *Chin. J. Chem.* **2012**, 30, 1295-1304.
9. Lewis base-catalyzed reactions of cyclopropanones: novel synthesis of mono-or multi-substituted allenic esters  
Yang, Y.-L.; Zhang, Z.; Zhang, X.-N.; **Wang, D.**; Wei, Y.; Shi, M. *Chem. Commun.* **2014**, 50, 115-117.
10. Highly efficient and stereoselective construction of bispirooxindole derivatives via a three-component 1,3-dipolar cycloaddition reaction  
Xu, Q.; **Wang, D.**; Wei, Y.; Shi, M. *ChemistryOpen* **2014**, 3, 93-98.
11. Cu(I)-catalyzed asymmetric chlorination of beta-keto esters in the presence of chiral phosphine-schiff base type ligands  
Jiang, J.-J.; Huang, J.; **Wang, D.**; Yuan, Z.-L.; Zhao, M.-X.; Wang, F.-J.; Shi, M. *Chirality* **2011**, 23, 272-276.
12. Pd(II)-catalyzed and diethylzinc-mediated asymmetric umpolung allylation of aldehydes in the presence of chiral phosphine-Schiff base type ligands  
Jiang, J.-J.; **Wang, D.**; Wang, W.-F.; Yuan, Z.-L.; Zhao, M.-X.; Wang, F.-J.; Shi, M. *Tetrahedron: Asymmetry*, **2010**, 2050-2054.
13. Cu(I)-catalyzed asymmetric  $\alpha$ -hydroxylation of  $\beta$ -keto esters in the presence of chiral phosphine-Schiff base type ligands  
Jiang, J.-J.; Huang, J.; **Wang, D.**; Wang, W.-F.; Yuan, Z.-L.; Zhao, M.-X.; Wang, F.-J.; Shi, M. *Tetrahedron: Asymmetry*, **2010**, 794-799.
14. A Phosphine-Catalyzed Novel Asymmetric [3+2] Cycloaddition of C,N-Cyclic Azomethine Imines with  $\delta$ -substituted Allenates

**Wang, D.;** Lei, Y.; Wei, Y.; Shi, M. *Chem.-Eur. J.* **2014**, 20, 15325-15329.

- 15 Chiral Phosphine-Catalyzed Tunable Cycloaddition Reactions of Allenates with Benzofuranone Derived Olefins for Highly Regio-, Diastereo- and Enantioselective Synthesis of Spiro-Benzofuranones

**Wang, D.;** Wang, G.-P.; Wei, Y.; Zhu, S.-F.; Zhou, Q.-L.; Shi, M. *Chem. Sci.*, **2015**, DOI: 10.1039/C5SC03135D.