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## EDUCATION & RESEARCH EXPERIENCE

### Postdoctoral Scholar – Weizmann Institute of Science

Advisor: Prof. David Milstein

Project: Nitrous Oxide Activation via Metal-Ligand Cooperation

-Developed homogeneously catalytic hydrogenation of nitrous oxide by a metal complex

Rehovot, Israel

June 2016-Now

### Postdoctoral Scholar – University of Texas - Austin

Advisor: Prof. Guangbin Dong

Project: Rhodium Catalyzed C–C bond Activation of Unstrained Ketone

-Developed a [5+2-1] transformation between isatins and alkynes;

-Provided a unique way to synthesize 2-quinolinone derivatives.

Austin, Texas

September 2013-May 2016

### Ph.D. Organic Chemistry – Zhejiang University

Advisor: Prof. Shengming Ma

Dissertation Title: Studies on the Radical Addition and C–H Functionalization-Based Reactions Involving Allenes

-Demonstrated the first radical addition-cyclization of allene-enes via an “alkene-to-allene” fashion;

-Developed TBAF-promoted dehydroiodination reactions for synthesis of allene moiety;

-Studied the migrative oxidation of 4-electron-withdrawing group substituted-2,3-allenols;

-Developed the Rh(III)-catalyzed stepwise *ortho*-allylation of arenes with poly-substituted allenes;

-Demonstrated the Rh(III)-catalyzed Heck-type cross-coupling reaction of arenes with silylallenes;

-Realized the coupling-cyclization reaction of 2,3-allenols and arenes via C-H bond functionalization.

Zhejiang, China

September 2008-July 2013

### B.S. Chemistry – Zhejiang University

Advisor: Prof. Shengming Ma

Dissertation Title: Palladium-catalyzed Coupling-cyclization of 2, 3-Allenic Acids and  $\alpha$ ,  $\beta$ -Unsaturated 2-Alkynones

-Provided an efficient way for synthesis of 4-(alkenyl)-2(5*H*)-furanones.

Zhejiang, China

September 2004-June 2008

## AWARDS AND HONOR

- (1) *Dean's Fellowship* (Weizmann Institute of Science, 2016)
- (2) *Reaxys Prize Club Runners-up* (Elsevier, 2013)
- (3) *Excellent Graduate of Zhejiang Province* (Zhejiang, 2013)
- (4) *Chu Kochen Award* (Top award at Zhejiang University, 2012, 0.05%)
- (5) *National Scholarship* (Zhejiang University, P. R. China, 2012, top 5%)
- (6) *First-class Award of Honor For Graduate* (Zhejiang University, 2011-2012, top 3%)
- (7) *Graduate of Merit/Triple A Graduate* (Zhejiang University, 2011-2012, top 10%)
- (8) *Excellent Graduate* (Zhejiang University, 2008)

## PUBLICATIONS

1. **Rong Zeng**, Moran Feller, Yehoshoa, Ben-David, David Milstein,\* Hydrogenation and Hydrosilylation of Nitrous Oxide Homogeneously Catalyzed by a Metal Complex. *J. Am. Chem. Soc.* **2017**, *139*, 5720.
2. **Rong Zeng**, Peng-Hao Chen, Guangbin Dong,\* Efficient Benzimidazolidinone Synthesis via Rhodium-Catalyzed Double-Decarbonylative C–C Activation/Cycloaddition between Isatins and Isocyanates. *ACS Catal.* **2016**, *6*, 969.
3. **Rong Zeng**, Guangbin Dong,\* Rh-Catalyzed Decarbonylative Coupling with Alkynes via C–C Activation of Isatins. *J. Am. Chem. Soc.* **2015**, *137*, 1408.
4. **Rong Zeng**, Zhichao Ma, Chunling Fu, and Shengming Ma,\* Sodium Iodide/*tert*-butyl(dimethyl)silyl Chloride-Induced Isomerization of 2,3-Allenols to 2(*E*)-Enals. *Adv. Synth. Catal.* **2014**, *356*, 1343.
5. **Rong Zeng**, Shangze Wu, Chunling Fu, and Shengming Ma,\* Room Temperature Synthesis of Trisubstituted Allenylsilanes via Regioselective C–H Functionalization, *J. Am. Chem. Soc.* **2013**, *135*, 18284.
6. **Rong Zeng**, Juntao Ye, Chunling Fu, and Shengming Ma,\* Arene C–H Bond Functionalization Coupling with Cyclization of Allenes. *Adv. Synth. Catal.* **2013**, *355*, 1963.
7. **Rong Zeng**, Chunling Fu, and Shengming Ma,\* Highly Selective Mild Stepwise Allylation of *N*-Methoxybenzamides with Allenes, *J. Am. Chem. Soc.* **2012**, *134*, 9597.
8. **Rong Zeng**, Chunling Fu,\* and Shengming Ma,\* Formal Alkylation of Allenes through Highly Selective Radical Cyclizations of Allene-enes, *Angew. Chem. Int. Ed.* **2012**, *51*, 3888.
9. Shangze Wu, **Rong Zeng**, Chunling Fu, Yihua Yu, Xue Zhang,\* and Shengming Ma,\* Rhodium-Catalyzed C–H Functionalization-Based Approach to Eight-membered Lactam, *Chem. Sci.* **2015**, *6*, 2275.
10. Guobi Chai, **Rong Zeng**, Chunling Fu, and Shengming Ma,\* Iron-Catalyzed Diastereoselective Synthesis of  $\alpha$ -(Methoxycarbonyl)allylsilanes, *Eur. J. Org. Chem.* **2013**, 148.
11. Zhichao Ma, **Rong Zeng**, Chunling Fu, and Shengming Ma,\* Studies on the Radical Addition Reaction of Perfluoroalkyl Iodides with 2,3-Allenols and the Pd-catalyzed Kinetic Resolution via Sonogashira Coupling Reaction, *Tetrahedron*, **2011**, *67*, 8808.
12. Zhichao Ma, **Rong Zeng**, Yihua Yu, and Shengming Ma,\* Highly Stereoselective Synthesis of 6-Perfluoroalkyl-6-fluoroalka-2,3,5-(*Z*)-trienols through Carbometallation-elimination of 5-Perfluoroalkylsubstituted 4(*E*)-Alken-2-ynols with Grignard Reagents, *Tetrahedron Lett.* **2009**, *50*, 6472.
13. Guofei Chen, **Rong Zeng**, Zhenhua Gu, Chunling Fu, and Shengming Ma,\* Pd(OAc)<sub>2</sub>-Catalyzed Cyclization of 2,3-Allenic Acids in the Presence of Terminal  $\alpha,\beta$ -Unsaturated Alkynones: A One-Pot Highly Stereoselective Synthesis of 4-(3'-Oxo-1'(*E*)-alkenyl)-2(5*H*)-furanones, *Org. Lett.* **2008**, *10*, 4235.

## PRESENTATIONS

1. **Rong Z.**; Dong, G. “Rh-Catalyzed Decarbonylative Cycloaddition with Alkynes via C–C Activation of Isatins” Summer Symposium in Green Chemistry and Catalysis, Austin, TX, United States, July 22th, 2015.