

# 重庆大学药学院

## 学术报告第一百四十七讲

**报告题目:** Cobalt-Catalyzed Hydrofunctionalization of Unsaturated Hydrocarbons

**报告人:** Shaozhong Ge 教授 (National University of Singapore)

**时 间:** 2018年9月27日(周四) 10:00

**地 点:** 重庆大学药学院学术报告厅

报告人简介:

Organosilanes and organoboron compounds are valuable reagents in organic synthesis due to their high stability and low toxicity. The research in my group at National University of Singapore (NUS) focuses on the development of base metals (Fe, Co, Ni, and Cu) catalyzed hydroboration and hydrosilylation of unsaturated hydrocarbons to access these synthetically versatile organosilanes and organoboron compounds. Here we will discuss in details a series of regio-, stereo-, or enantioselective cobalt-catalyzed hydroboration and hydrosilylation of alkenes, alkynes, allenes, enynes, and conjugated dienes (Figure 1).<sup>1-8</sup> The cobalt catalysts are generated in situ from bench stable cobalt precursors and bisphosphine ligands.



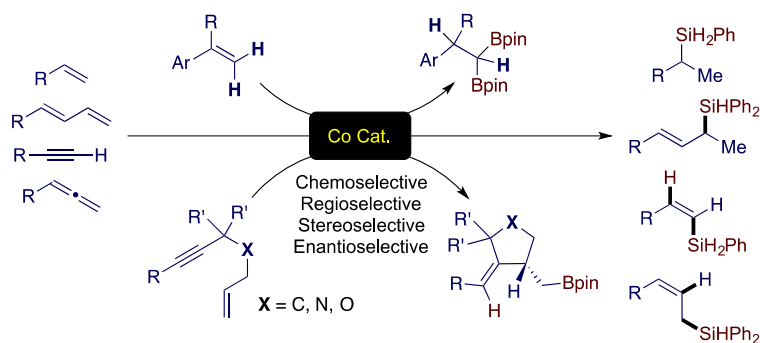


Figure 1. Cobalt-catalyzed Hydrofunctionalization of Unsaturated Hydrocarbons

#### References:

- (1) Wang, C.; Teo, W. J.; Ge, S.\* *ACS Catal.* 2017, 7, 855–863.
- (2) Teo, W. J.; Wang, C.; Tan, Y. W. Ge, S.\* *Angew. Chem. Int. Ed.* 2017, 56, 4328–4332.
- (3) Yu, S.; Wu, C.; Ge, S.\* *J. Am. Soc. Chem.* 2017, 139, 6526–6529.
- (4) Wang, C.; Teo, W. J.; Ge, S.\* *Nat. Commun.* 2017, 8, 2258.
- (5) Sang, H. L.; Yu, S.; Ge, S.\* *Chem. Sci.* 2018, 9, 973–978.
- (6) Teo, W. J.; Ge, S.\* *Angew. Chem. Int. Ed.* 2018, 57, 1654–1658.
- (7) Wang, C.; Teo, W. J.; Ge, S.\* *J. Am. Soc. Chem.* 2018, 140, 10687–10690.
- (8) Teo, W. J.; Ge, S.\* *Angew. Chem. Int. Ed.* 2018, 57, DOI: 10.1002/anie.201805705.