

“Functionalization of C(sp³)–H Bonds for the C–X Bonds Formation”

Prof. Yi Pan

School of Chemistry and Chemical Engineering, Nanjing University, Nanjing (China)

Abstract: Transition metal-catalyzed C–H activation has recently emerged as the most powerful and straightforward tool for the functionalization of organic molecules. Although many efforts have focused on the direct sp² C–H activation in the past two decades. Much less research has been devoted to the activation of more inert sp³ C–H bonds, which is more challenging owing to their low reactivity and the lack of a coordination site for the transition-metal catalyst. This talk mainly focuses on the studies of cheap metal or metal-free catalyzed C–H bond activation to construct C–X (X = C, O, S, Se) bonds.

Ten most important publications

1. Jincan Zhao, Hong Fang, Ruichun Song, Jie Zhou, Jianlin Han, Yi Pan, *Chem. Commun.* **2015**, *51*, 599–602.
2. Hong Fang, Jincan Zhao, Shengyang Ni, Haibo Mei, Jianlin Han, Yi Pan, *J. Org. Chem.* **2015**, *80*, 3151–3158.
3. Wei Zhou, Ping Qian, Jincan Zhao, Hong Fang, Jianlin Han, Yi Pan, *Org. Lett.* **2015**, *17*, 1160–1163.
4. Wei Zhou, Shengyang Ni, Haibo Mei, Jianlin Han, Yi Pan, *Org. Lett.* **2015**, *17*, 2724–2727.
5. Jincan Zhao, Hong Fang, Ping Qian, Jianlin Han, Yi Pan, *Org. Lett.* **2014**, *16*, 5342–5345.
6. Jincan Zhao, Hong Fang, Jianlin Han, Yi Pan, *Org. Lett.* **2014**, *16*, 2530–2533.
7. Jincan Zhao, Hong Fang, Jianlin Han, Yi Pan, Guigen Li, *Adv. Synth. Catal.* **2014**, *356*, 2719–2724.
8. Jincan Zhao, Hong Fang, Wei Zhou, Jianlin Han, Yi Pan, *J. Org. Chem.* **2014**, *79*, 3847–3855.
9. Jincan Zhao, Hong Fang, Jianlin Han, Yi Pan, *Beilstein J. Org. Chem.* **2013**, *9*, 1718–1723.
10. Wei Zhou, Chen Xie, Jianlin Han, Yi Pan, *Org. Lett.* **2012**, *14*, 4766–4769.