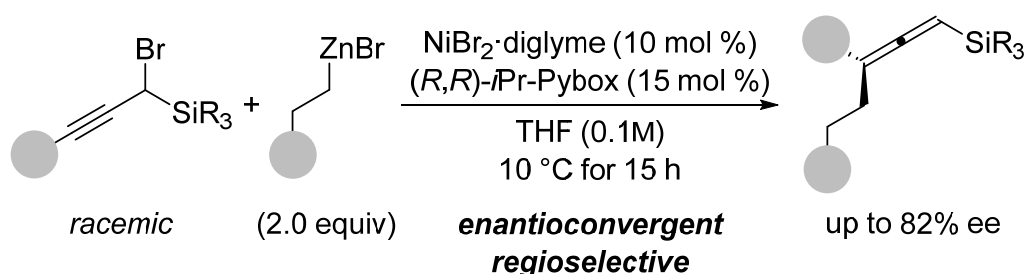


## Enantio- and Regioconvergent Synthesis of Allenylsilanes by Nickel-Catalyzed C(sp<sup>2</sup>)–C(sp<sup>3</sup>) Cross-Coupling Starting from Racemic $\alpha$ -Silylated Propargylic Bromides

Yan Xu – WS18 batch – Supervisor: Martin Oestreich



Here, we develop a nickel-catalyzed enantioselective cross-coupling of racemic  $\alpha$ -silylated propargylic bromides and organozinc reagents. The high regioselectivity is governed by the silyl group, and the C(sp<sup>2</sup>)–C(sp<sup>3</sup>) bond formation occurs exclusively at the  $\gamma$ -position of the propargylic electrophile. It features mild reaction conditions, wide functional group tolerance. While the level of enantioselection induced by a chiral Pybox ligand is moderate, the method is one of the few examples of a catalytic asymmetric synthesis of allenylsilanes directly starting from a racemic precursor.