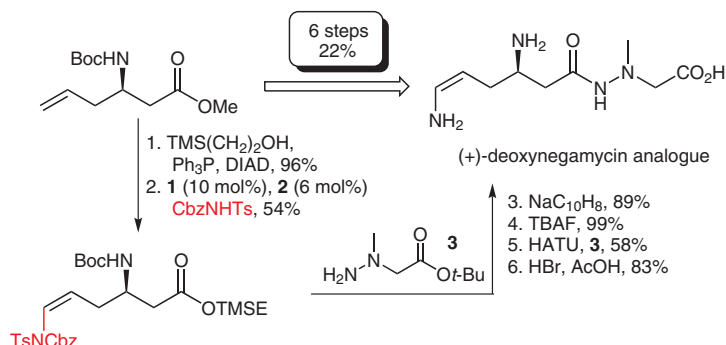
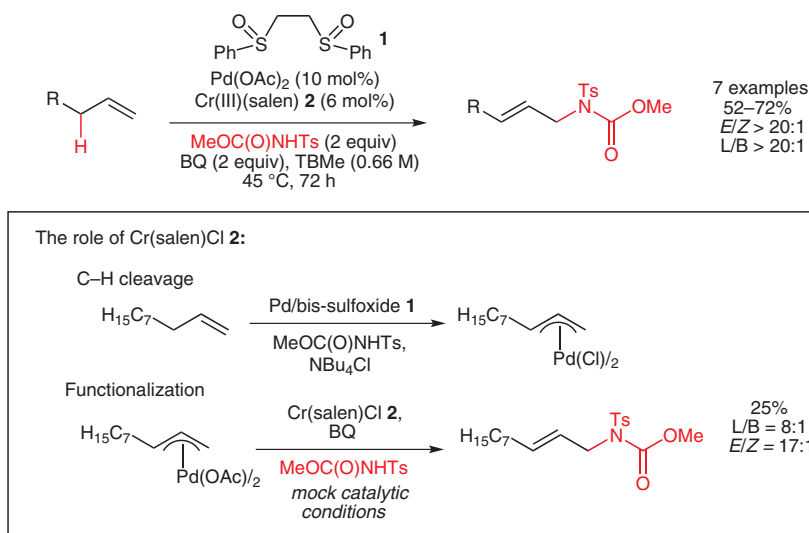


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Heterobimetallic Catalyst for Intermolecular C–H Amination



Significance: In the previous report, White demonstrated the power of Pd/sulfoxide catalyst **1** on the direct intramolecular C–H amination (K. J. Fraunhofer, M. C. White *J. Am. Chem. Soc.* **2007**, *129*, 7274.) This latest report from White's group shows that a more difficult intermolecular alternative is feasible using the Pd/sulfoxide–Cr(salen) couple. Remarkably, the reaction is carried out in a highly regio- and diastereoselective fashion. The outstanding feature of this method is the possibility of accessing the nitrogen functionality in unactivated olefins circumventing an oxygenated precursor.

Comment: White's account presents one of the most sophisticated solutions for straightforward synthesis of allylic amines from unactivated alkenes. This protocol can be successfully executed with various substrates possessing remote functionalities and various structural features. Chiral substrates are efficiently affected under standard conditions without deterioration of existing chirality. The superiority of the method is further illustrated by the short synthesis of a conformationally restricted deoxynegamycin analogue in fewer steps and higher overall yield than the most proficient synthesis reported so far.

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