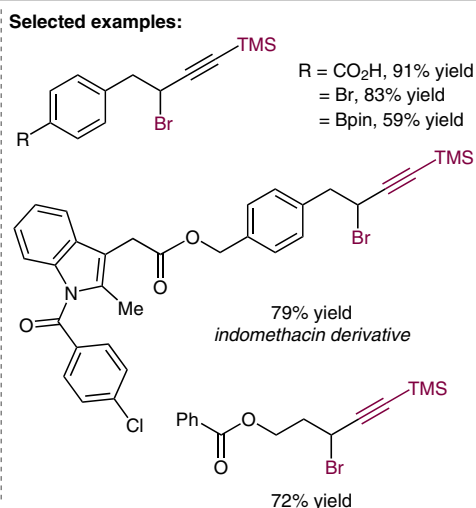
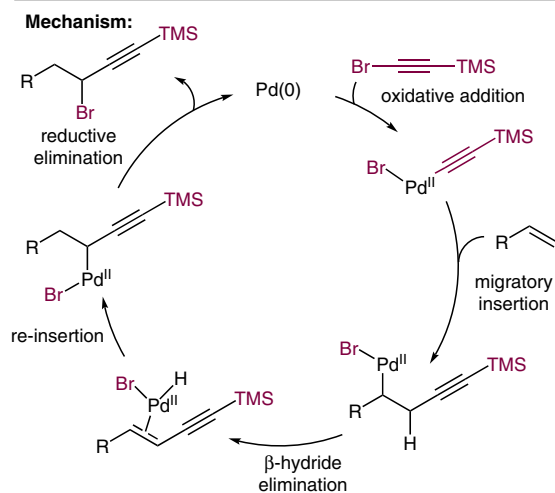
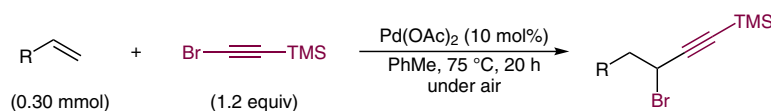


# Palladium-Catalyzed Intermolecular 1,1-Carbobromination of Alkenes with Alkynyl Bromides



**Significance:** The Chatani group reports a novel method for the synthesis of propargylic bromides via a palladium-catalyzed 1,1-alkynylbromination of alkenes with alkynyl bromides. Notably, in sharp contrast to other carbohalogenations, the reaction does not require any specialized ligand to induce reductive elimination to form the C–X bond; it occurs under ligandless conditions with Pd(OAc)<sub>2</sub> as the palladium precursor.

**Comment:** Although the reaction occurs under air with a Pd(II) source, an induction time was observed under the standard conditions, whereas no induction time was observed with Pd<sub>2</sub>dba<sub>3</sub>·CHCl<sub>3</sub>. Accordingly, the authors propose Pd(0) as being the active catalyst. The proposed mechanism is comprised of oxidative addition and migratory insertion. β-Hydride elimination is favored over reductive elimination, followed by reinsertion of the alkene. Reductive elimination then affords the final propargylic bromide product.