An Efficient, Practical, and Selective Multicomponent Copper-Catalyzed Process

**Significance:** The authors demonstrate the generation of multifunctional alkynylboron fragments starting from two simple unsaturated organic molecules and a commercially available diboron reagent. These fragments were shown to carry several advantageous properties. The catalyst used is generated in situ by the reaction of inexpensive CuCl with a chiral ligand which was prepared on multigram scale in good yield.

**Comment:** The practical protocol can be performed on large scale and makes gram quantities of a variety of complex organic molecules easily available. The products, which contain a stereogenic carbon center, a monosubstituted alkene, and an easily functionalizable $Z$-trisubstituted alkynylboron group, are obtained in good yields and excellent selectivities.