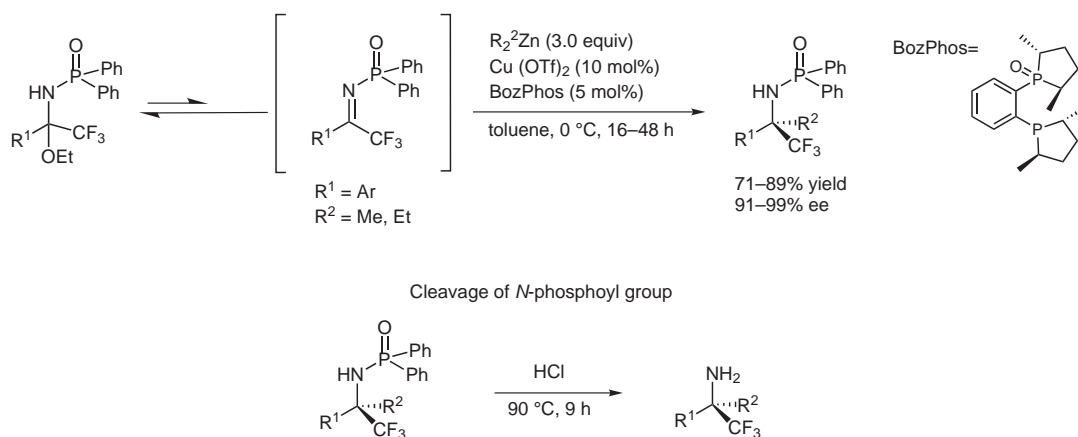


## Copper-Catalyzed Synthesis of $\alpha,\alpha,\alpha$ -Trifluoromethylamines



**Significance:** Diorganozinc additions to aldimines have been extensively studied; however, extension to ketimines is unknown. Here, the authors represent the first example of nucleophilic addition of diorganozinc reagents to ketimines. Using a required precursor to the ketimine, the desired product was formed in high yield and excellent enantioselectivity.

**Comment:** The use of trifluoromethyl functionalities generally results in higher reactivity, which is required for milder conditions. The authors had some difficulty generating the desired ketimine directly due to hydrolysis but, however, found small amounts in solution by  $^1\text{H}$  NMR spectroscopy. Due to the lower reactivity, dimethylzinc required longer reaction times than diethylzinc. Hydrolysis of the *N*-phosphinoyl-protected product gave the free amine in high yield and without loss of enantioselectivity. In fact, *N*-phosphinoyls are now known to be the most useful *N*-protecting groups for practical organic synthesis.