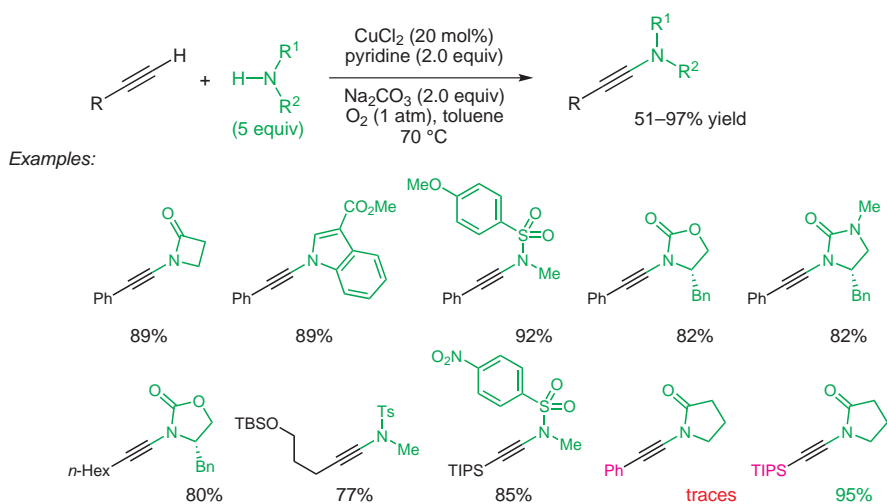
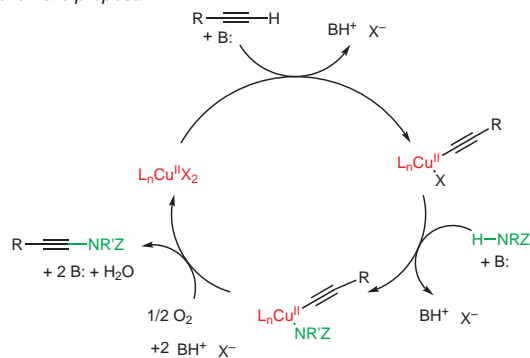


Direct Catalytic Synthesis of Ynamides from Alkynes



Mechanistic proposal:



Significance: This article describes the first direct catalytic synthesis of ynamides from alkynes. The reaction proceeds under aerobic conditions with Cu(II) catalysis. Amidation was generally achieved with moderate to high yields for a broad range of substrates. Remarkably, pyrrolidinone does not efficiently react with phenylacetylene under the given conditions. Coupling with the electron-rich triisopropylacetylene, however, was observed.

Comment: So far, oxidative aminations of alkynes via metal catalysis have rather led to carboxamides. This reaction allows a direct, highly atom-economic access to ynamides. Moreover, it also represents a valuable starting point for the development of new aerobic oxidative coupling reactions.