

Arylalkoxylation of Alkynes & Olefins via Transition Metal-Catalyzed C–O Activation

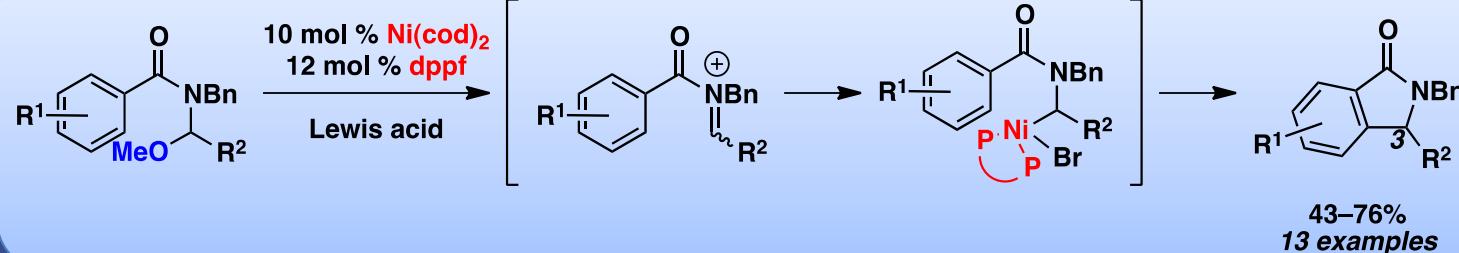
Mary P. Watson, Department of Chemistry & Biochemistry, University of Delaware



In our pursuit to exploit transition metal-catalyzed activation of C–O bonds for the rapid generation of molecular and stereochemistry complexity, we have recently become interested in transition metal catalysis of substrates with weak C–O bonds and found this to be an exciting area for the discovery of new reaction technology.



We have discovered a novel Ni(0)-catalyzed cyclization of *N*-benzoylaminals to isoindolinones, which proceeds via C–H functionalization. The isoindolinone core is present in many biologically active molecules.



We have developed an enantioselective Cu(I)-catalyzed alkynylation of isochroman acetals. This reaction is one of only four methods for enantioselective addition to cyclic, prochiral oxocarbenium ions.

