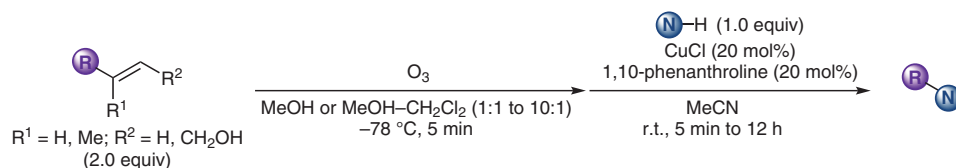


Z. HE, J. A. MORENO, M. SWAIN, J. WU, O. KWON* (UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA)

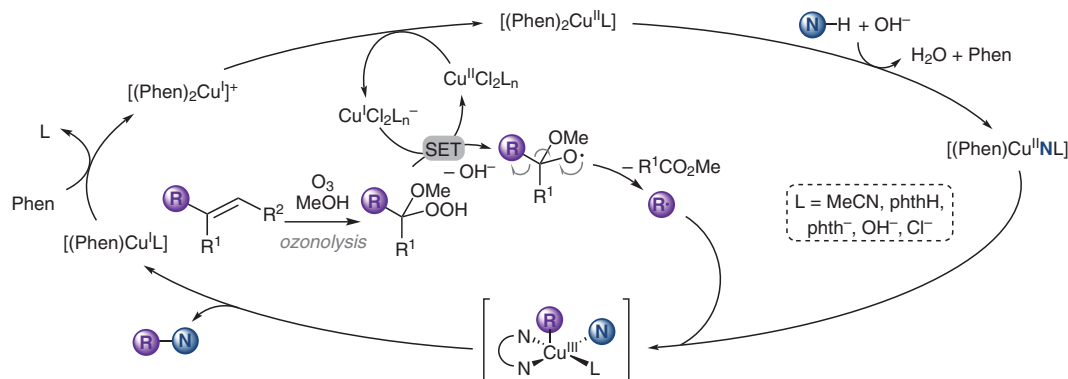
Aminodealkenylation: Ozonolysis and Copper Catalysis Convert C(sp³)-C(sp²) Bonds to C(sp³)-N Bonds

Science 2023, 381, 877–886, DOI: 10.1126/science.adi4758.

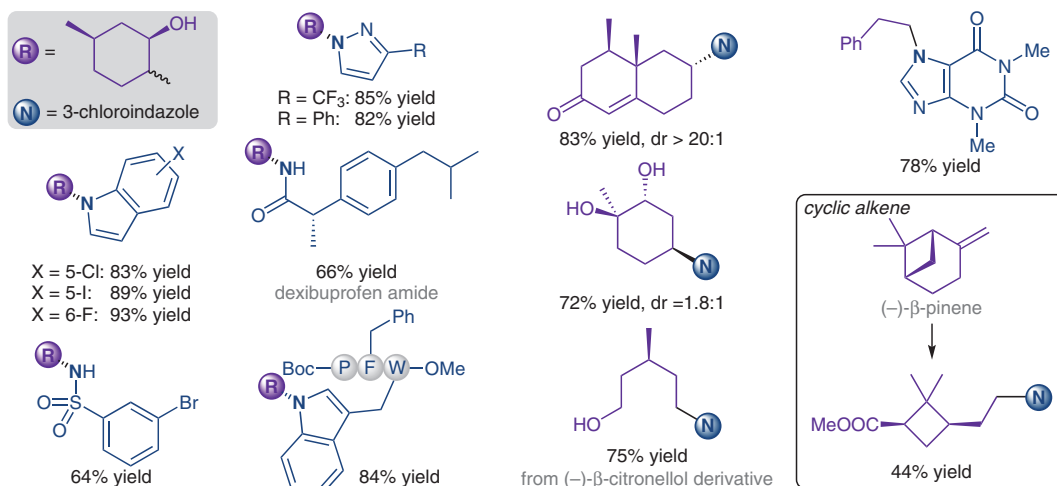
Dealkenylative C(sp³)-N Cross-Coupling of Alkenes and Amines by Merging Ozonolysis and Copper Catalysis



— Proposed mechanism:



— Selected examples:



Significance: Kwon and co-workers report a novel aminodealkenylation approach to form C(sp³)-N bonds by coupling alkenes and a diverse set of amines. The synthetic utility of this protocol is demonstrated by the preparation of complex bio-active molecules.

Comment: α-Methylstyrene functions as an effective methylation agent within this protocol. Mechanistic investigation such as kinetic studies support the shown mechanism, involving an unusual copper ion pair cooperative process.

SYNFACTS Contributors: Martin Oestreich, Hendrik F. T. Klare, Aliyaah J. M. Rahman
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