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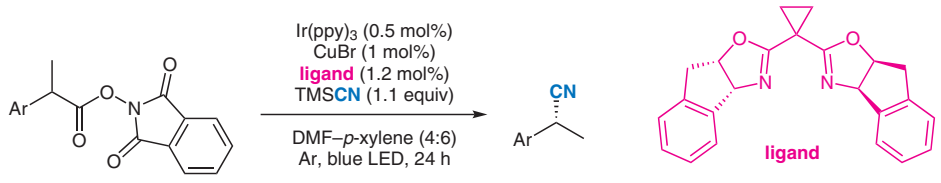
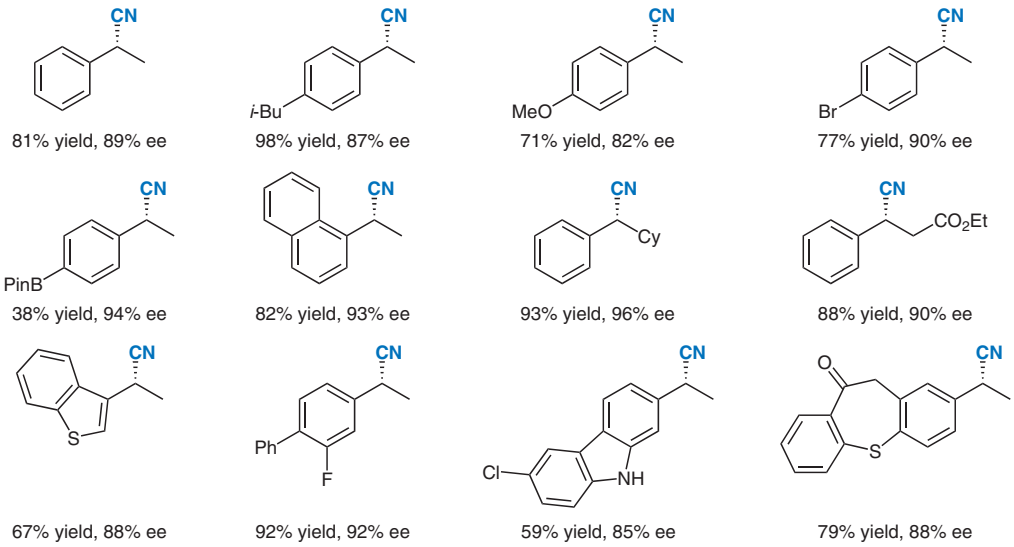
Enantioselective Decarboxylative Cyanation Employing Cooperative Photoredox Catalysis and Copper Catalysis
J. Am. Chem. Soc. **2017**, *139*, 15632–15635.

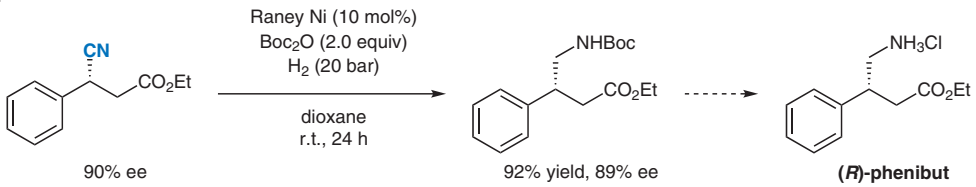
Cooperative Catalysis for Asymmetric Decarboxylative Cyanation



Selected examples:



Application:



Significance: Chiral alkyl nitriles are synthetically valuable compounds in organic synthesis. The authors have developed an asymmetric decarboxylative cyanation of *N*-hydroxyphthalimide esters by cooperative photoredox and copper catalysis.

Comment: This catalytic decarboxylative cyanation provides enantioenriched alkyl nitriles in good yields with high enantioselectivities. The reaction can be applied in the synthesis of a key intermediate for the chiral antidepressant molecule (*R*)-phenibut.

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