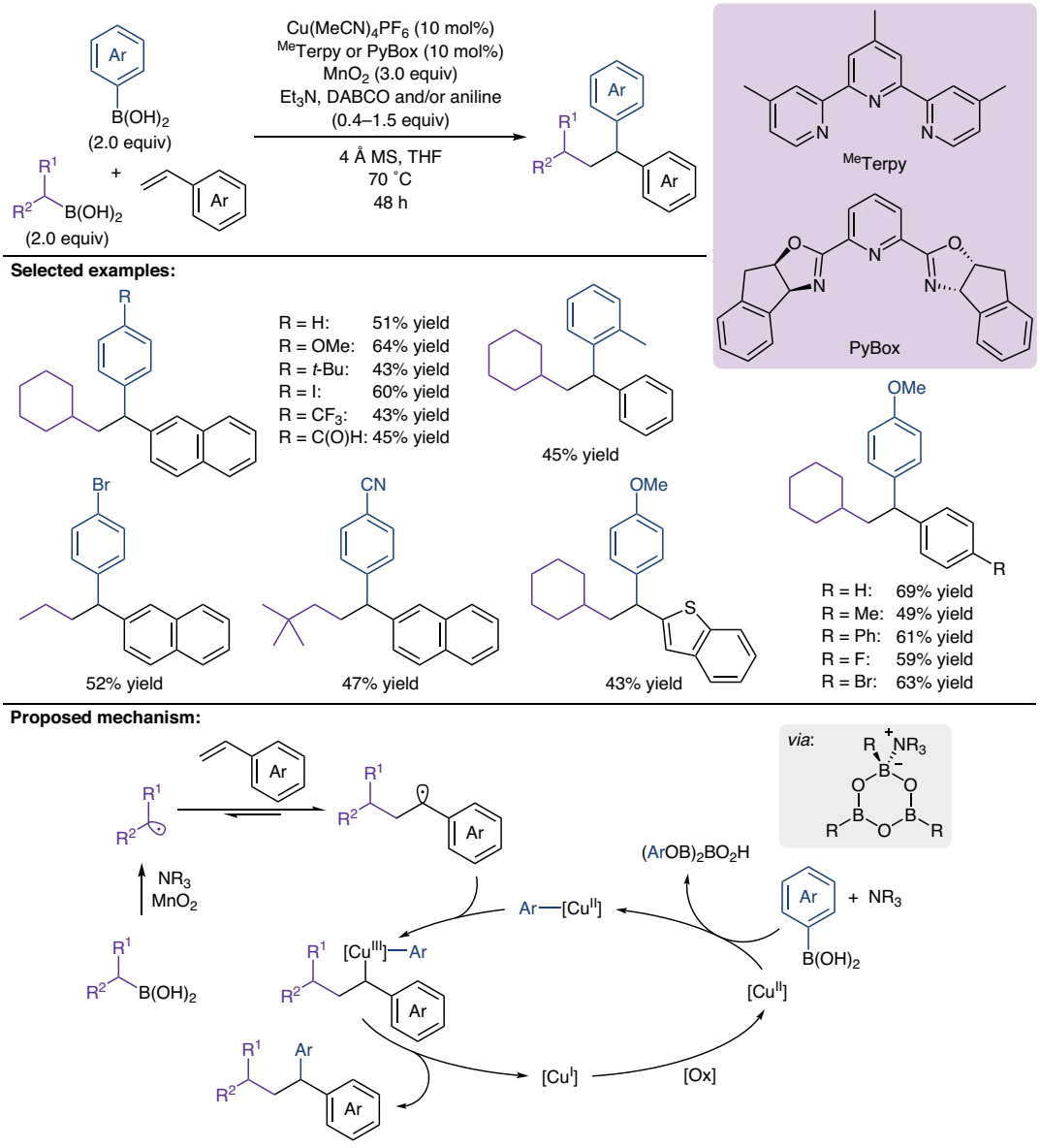
S. LEE, J. D. YU, A. L. MONTERDE, S. E. TUNG, Y.-N. WANG, B. L. GAY, K. L. HULL*
(UNIVERSITY OF TEXAS AT AUSTIN, USA)

Chemoselective Cu-Catalyzed Cross-Nucleophile Alkylarylation of Alkenes
ACS Catal. **2024**, *14*, 14242–14250, DOI: 10.1021/acscatal.4c03955

Copper-Catalyzed Cross-Nucleophile Alkylarylation of Vinylarenes with Two Different Boronic Acids



Significance: Hull and co-workers report an oxidative cross-nucleophile strategy for the alkylarylation of vinyl arenes using two different boronic acids. This operationally simple and scalable protocol provides straightforward access to 1,1-diarylalkanes.

Comment: Mechanistic investigations support the shown mechanism. Lewis pair formation of the in situ formed boroxines and the added amine was found to be crucial for this transformation (see gray box).

SYNFACTS Contributors: Martin Oestreich, Hendrik F. T. Klare, Phillip Pommerening
Synfacts 2024; 20(12), 1265
DOI: 10.1055/a-2439-7209; **Reg-No.:** M13724SF

Category
Metals in Synthesis

Key words
alkenes
alkylarylation
boronic acids
cross-nucleophile coupling
1,1-diarylalkanes

Synfact of the Month