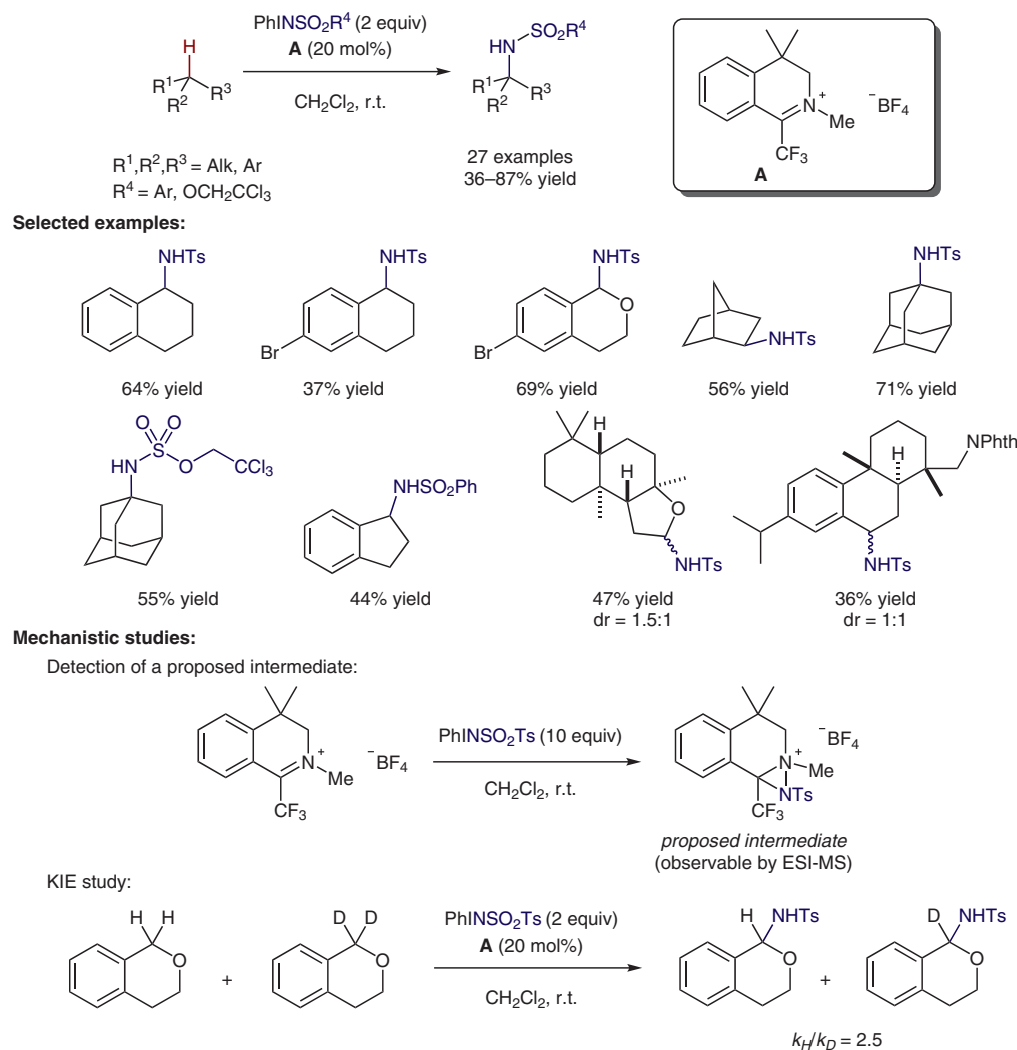


L. A. COMBEE, B. RAYA, D. WANG, M. K. HILINSKI* (UNIVERSITY OF VIRGINIA, CHARLOTTESVILLE, USA)

Organocatalytic Nitrenoid Transfer: Metal-Free Selective Intermolecular C(sp³)-H Amination Catalyzed by an Iminium Salt

Chem. Sci. 2018, DOI: 10.1039/C7SC03968A.

Organocatalytic C(sp³)-H Amination through Nitrenoid Transfer



Significance: The Hilinski group reports a C(sp³)-H amination through a nitrenoid transfer catalyzed by iminium salt **A**. The reaction proceeds in moderate to high yields, and the method is applicable to several natural products having other functional groups.

Comment: In contrast to reported nitrenoid-transfer reactions catalyzed by transition metals, the authors developed an organocatalytic variant of the transformation. They proposed the di-aziridinium salt as critical intermediate, which is supported by ESI-MS analysis, but not yet fully characterized. A kinetic isotopic effect study suggested C-H cleavage as the rate-determining step.

SYNFACTS Contributors: Benjamin List, Nobuya Tsuji
Synfacts 2018, 14(02), 0195 Published online: 18.01.2018
DOI: 10.1055/s-0037-1609142; Reg-No.: B11817SF