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 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

Category

Organo- and Biocatalysis

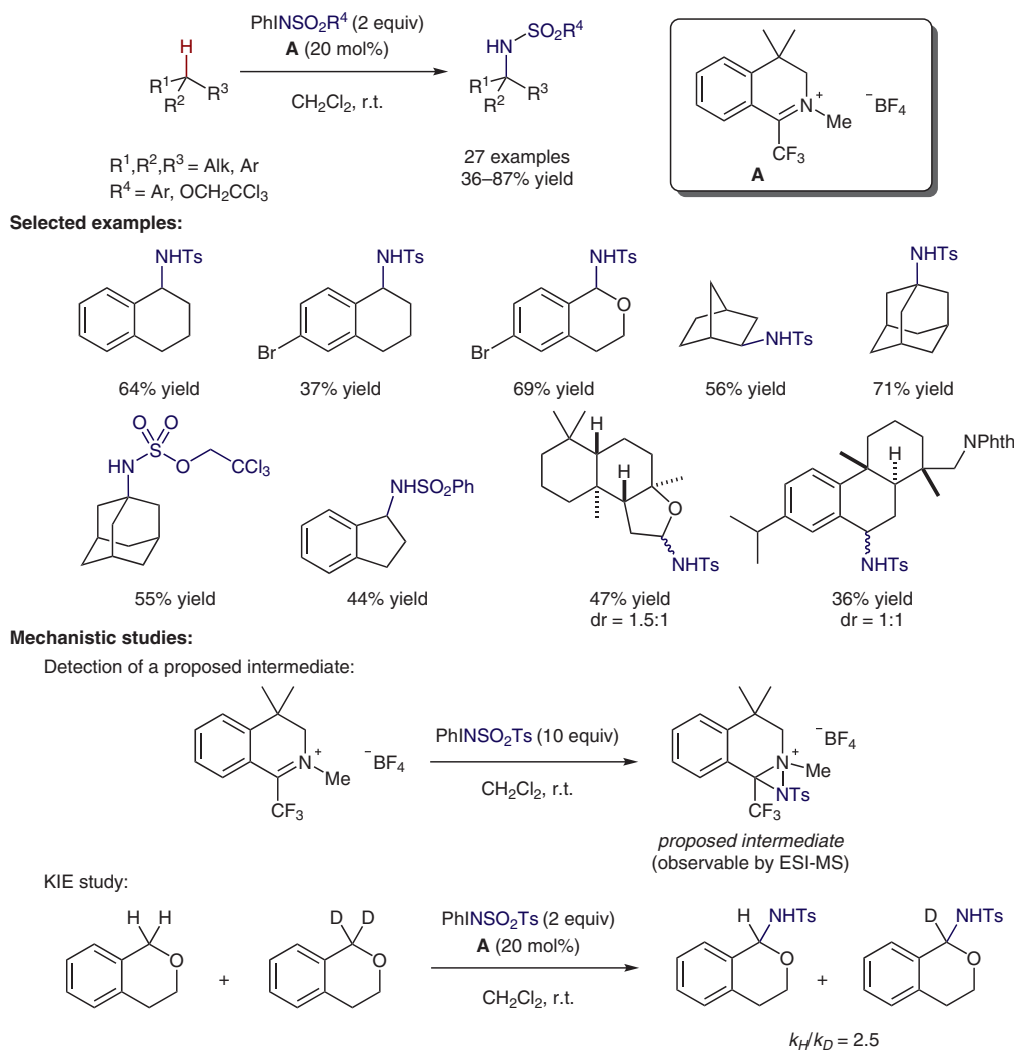
Key words

nitrenoid transfer

amination

iminium salt

Synfact
of the month



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 diaziridinium 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.

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

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