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 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.

Selected examples:

- 64% yield
- 37% yield
- 69% yield
- 56% yield
- 71% yield
- 55% yield
- 44% yield
- 47% yield
- 36% yield

Mechanistic studies:

Detection of a proposed intermediate:

- *k_H/k_D = 2.5*

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