Ruthenium-Catalyzed Generation of N-Unsubstituted Imines

Significance: The authors report, that N-unsubstituted imines can be efficiently generated from alkyl azides using a ruthenium catalyst and fluorescent light. Furthermore, an allylation reaction in a one-pot fashion was achieved, leading to homoallylic imines.

Comment: The mild reaction conditions allow an asymmetric allylation of in situ generated benzaldimine from benzyl azide. Using the chiral allyl bis(isopinocampheyl)borane reagent at −78 °C furnishes the homoallylic amine in 87% yield with an enantiomeric excess of 89%.