Biocatalysis

Thiourea-Catalyzed Asymmetric Cyanation of N-Boc Ketimines

Application to the total synthesis of spirohydantoin I:

Significance: The first catalytic asymmetric cyanation of isatin-derived *N*-Boc ketimines has been reported by Zhou and co-worker. Wide substrate scope and excellent enantioselectivities were obtained. A tandem aza-Wittig–Strecker reaction has also been reported, which was applied to the total synthesis of spirohydantoin I.

Comment: An aza-Wittig–Strecker reaction sequence has been reported, which offers a good methodology to develop a catalytic asymmetric reaction of *N*-Boc ketimines, generated in situ from the achiral ketones. The strategy has potential applications in other types of reactions, in which *N*-Boc imines are involved.