Titanium-Catalyzed Asymmetric Pauson–Khand Type Reaction

**Significance:** Hicks and Buchwald reported an asymmetric titanium-catalyzed Pauson–Khand type reaction to access bicyclic cyclopentenones in excellent yields and enantioselectivity. In addition to good to excellent ee values, the reaction also tolerates 1,1-disubstituted olefins amongst its wide substrate scope; a weakness in earlier Pauson–Khand systems.

**Comment:** The active catalyst is generated in situ, from \((S,S)-(EBTHI)Ti(CO)_2\). Both temperature of the reaction and the pressure of CO impacted the yield; temperatures lower than 90 °C or pressures above and below 14 psig were observed to result in diminished conversions.

**Review:** S. E. Gibson (née Thomas), A. Stevenazzi