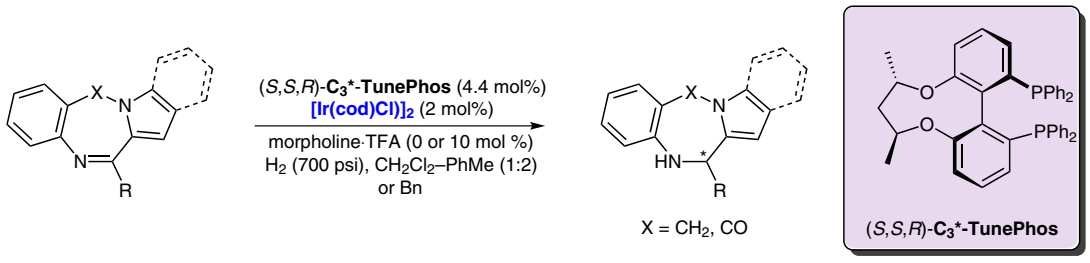
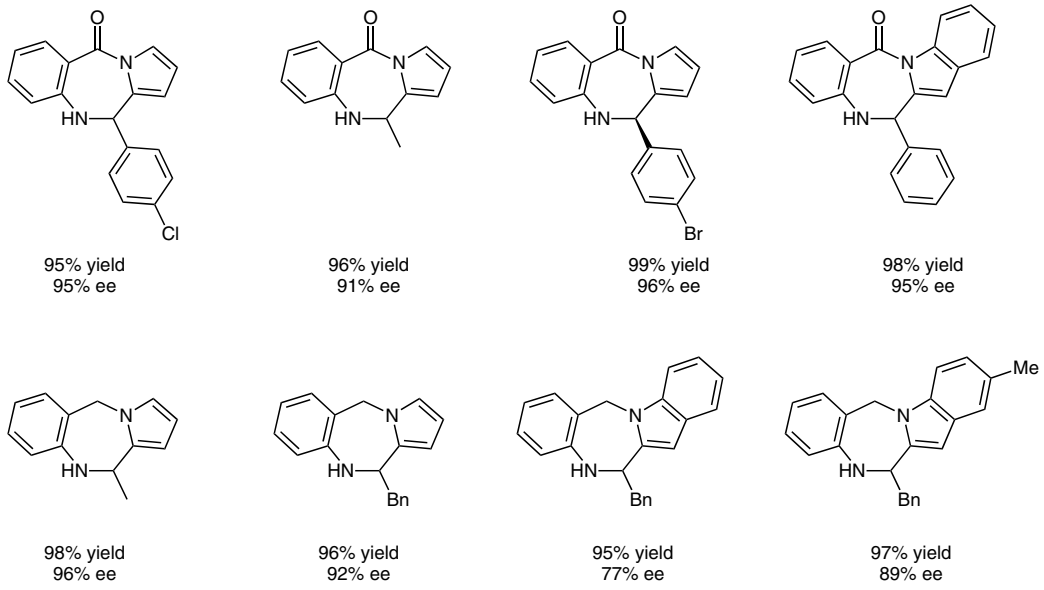
K. GAO, B. WU, C.-B. YU, Q.-A. CHEN, Z.-S. YE, Y.-G. ZHOU* (DALIAN INSTITUTE OF CHEMICAL PHYSICS, P. R. OF CHINA)

Iridium Catalyzed Asymmetric Hydrogenation of Cyclic Imines of Benzodiazepinones and Benzodiazepines
Org. Lett. **2012**, *14*, 3890–3893.

Ir(I)-Catalyzed Asymmetric Hydrogenation of Seven-Membered Cyclic Imines



Selected examples:



Significance: Dihydrobenzodiazepinones and -diazepines are a unique class of heterocycles with a range of biological activities. This report describes an efficient protocol for their synthesis by asymmetric hydrogenation.

Comment: Experiments showed that additives dramatically influenced the reaction in a highly substrate-dependent manner. When imines of benzodiazepinones were used, addition of morpholine trifluoroacetate improved both reactivity and selectivity. However, when the same additive was used with benzodiazepines, the selectivity decreased.

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