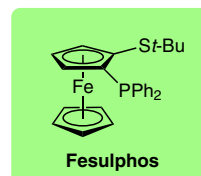
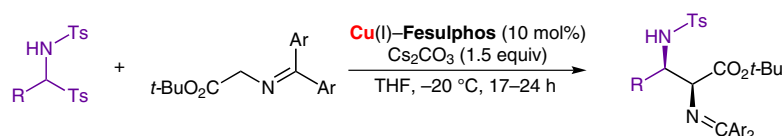


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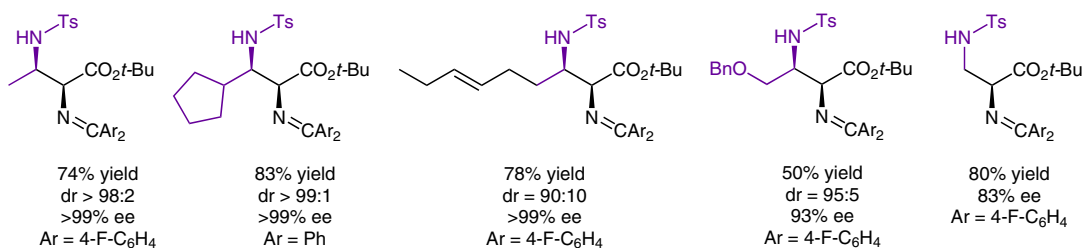
Catalytic Asymmetric Mannich Reaction of Glycine Schiff Bases with  $\alpha$ -Amido Sulfones as Precursors of Aliphatic Imines

*Chem. Commun.* **2012**, 48, 9622–9624.

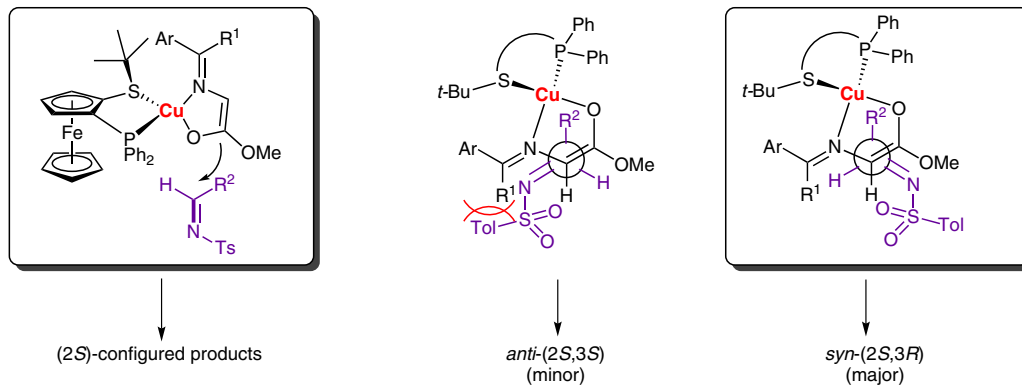
## Copper-Catalyzed Asymmetric Mannich Reaction of Glycine Imines



### Selected examples:



### Proposed transition-state model:



**Significance:**  $\alpha,\beta$ -Diamino acids are valuable due to their presence in peptide-based drugs and other bioactive compounds. In this report, the authors have extended their copper-catalyzed Mannich reaction of glycine Schiff bases to imines derived from aliphatic aldehydes, which previously performed poorly.

**Comment:**  $\alpha$ -Amido sulfones are employed as imine precursors, due to the instability of imines derived from aliphatic aldehydes. Excellent enantioselectivity and *syn*-selectivity is obtained for a variety of imines. The products have high synthetic applicability due to the orthogonal protection of the amines.

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Asymmetric  
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Stereoselective  
Reactions

Key words

glycine imines  
Mannich reaction  
copper  
Schiff bases