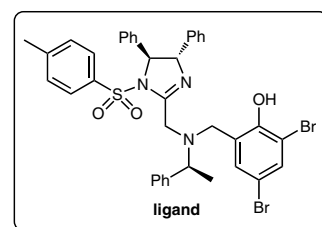
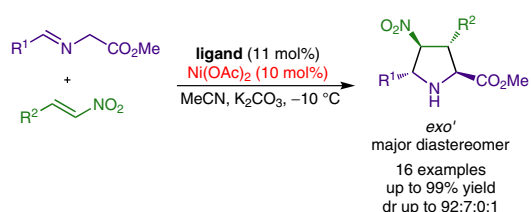


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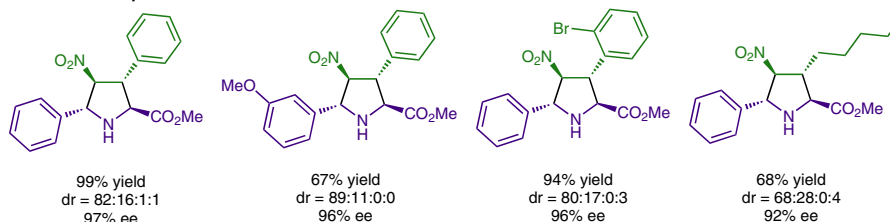
Catalytic Asymmetric *exo'*-Selective [3+2] Cycloaddition of Iminoesters with Nitroalkenes

Angew. Chem. Int. Ed. **2010**, *49*, 7895-7898.

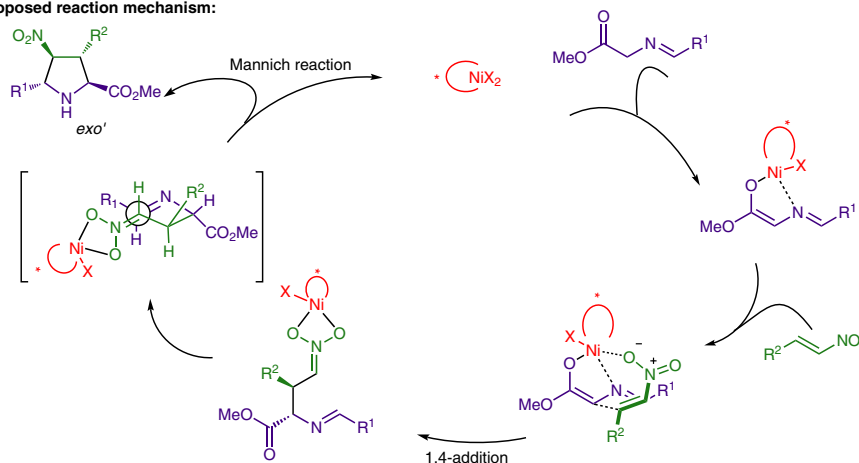
Stereoselective [3+2] Cycloaddition of Imino Esters with Nitroalkenes



Selected examples:



Proposed reaction mechanism:



Significance: A library of solid-phase imidazo-line-aminophenol/metal catalysts was prepared and a high-throughput screening method employing analysis by circular dichroism spectroscopy was used to find the most selective catalyst. This is the first method to generate *exo'* products in high diastereoselectivity and with excellent ee values.

Comment: The *exo'* stereochemistry suggests that the mechanism is not a concerted [3+2] cycloaddition. The authors propose a stepwise mechanism that involves 1,4-addition followed by a Mannich-type reaction as shown above.

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