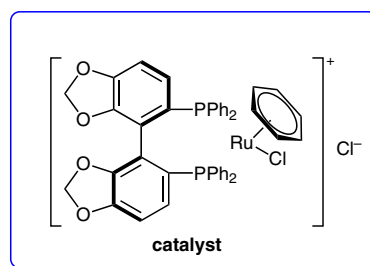
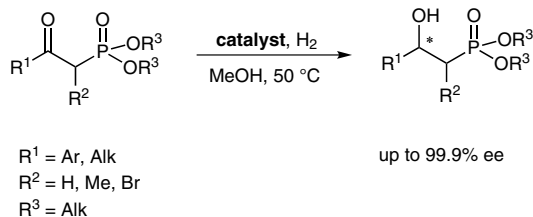
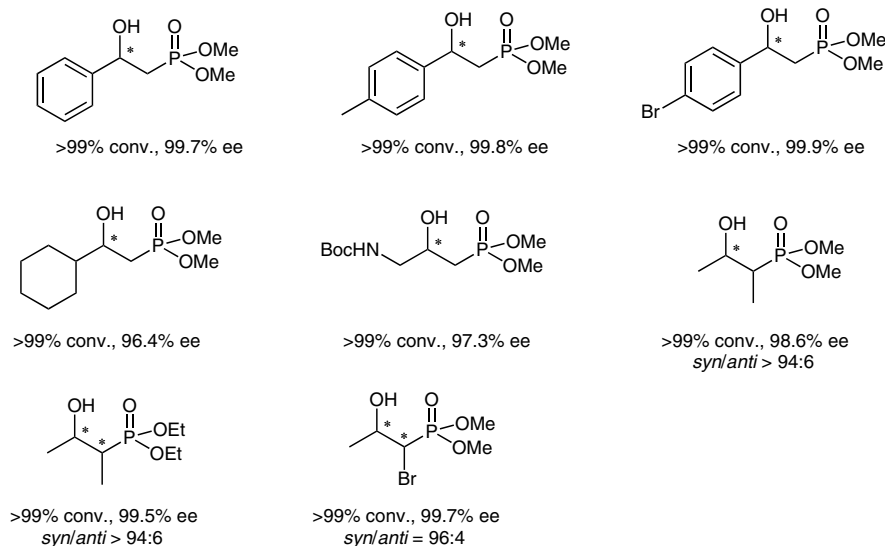


Ruthenium-Catalyzed Asymmetric Hydrogenation of β -Ketophosphonates



Selected examples:



Significance: The current work represents an efficient protocol for the enantioselective hydrogenation of β -ketophosphonate derivatives catalyzed by a ruthenium-(S)-Sunphos complex. Good to excellent enantioselectivity and yield were obtained for a variety of substrates.

Comment: Hydroxyphosphonate motifs are known to be mimics of hydroxy carboxylic acids or amino acids. Given their medicinal importance, many synthetic methodologies have been developed. The protocol described herein was even used for the reduction of α -substituted β -ketophosphonates, providing the desired products with good *syn* diastereoselectivity.