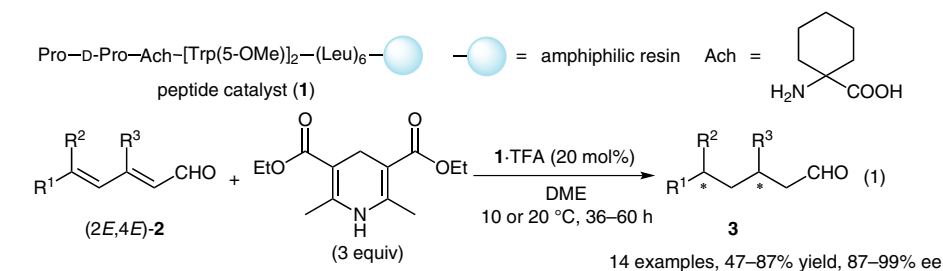
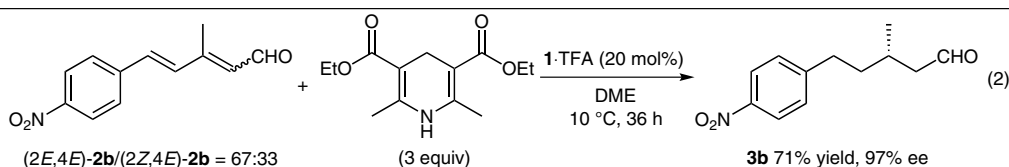
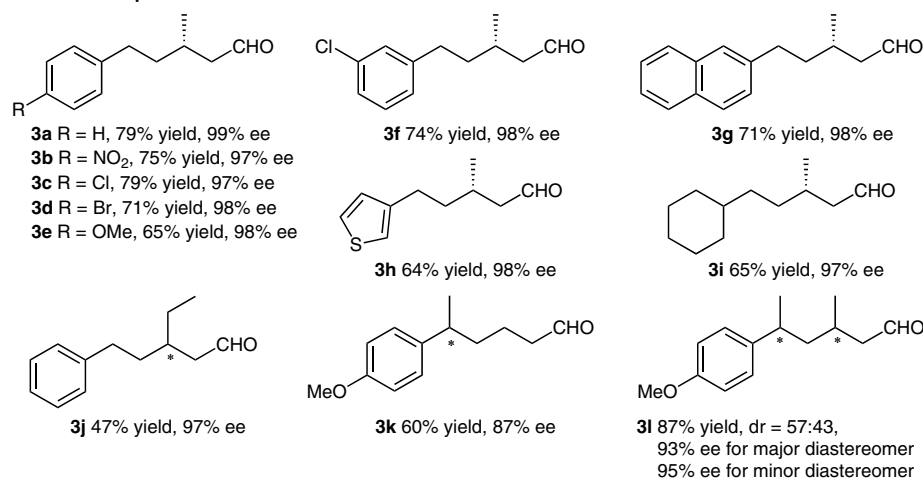


Regio- and Enantioselective Hydrogenation Using a Peptide Catalyst



Selected examples:



Significance: The amphiphilic resin-supported peptide **1** catalyzed the regio- and enantioselective transfer hydrogenation of (2*E*,4*E*)- $\alpha,\beta,\gamma,\delta$ -unsaturated aldehydes **2** with a Hantzsch ester to give the corresponding aldehydes **3** in 47–87% yield with 87–99% ee (14 examples, eq. 1).

Comment: In the hydrogenation of the mixture of (2*E*,4*E*)-**2b** and (2*Z*,4*E*)-**2b**, aldehyde **3b** was obtained in 71% yield with 97% ee (eq. 2). The authors have previously reported the asymmetric transfer hydrogenation of α,β -unsaturated aldehydes with a Hantzsch ester in the presence of resin-supported peptides (*Org. Lett.* **2008**, 10, 2035; *Tetrahedron: Asymmetry* **2009**, 20, 461).