Regio- and Enantioselective Hydrogenation Using a Peptide Catalyst

**Significance:** The amphiphilic resin-supported peptide 1 catalyzed the regio- and enantioselective transfer hydrogenation of \((2E,4E)\)-\(\alpha,\beta,\gamma,\delta\)-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 \((2E,4E)\)-2b and \((2Z,4E)\)-2b, aldehyde 3b was obtained in 71% yield with 97% ee (eq. 2). The authors have previously reported the asymmetric transfer hydrogenation of \(\alpha,\beta\)-unsaturated aldehydes with a Hantzsch ester in the presence of resin-supported peptides (Org. Lett. 2008, 10, 2035; Tetrahedron: Asymmetry 2009, 20, 461).