Copper-Catalyzed Enantioselective Reduction of \(\alpha,\beta\)-Unsaturated Esters

**Significance:** Buchwald and co-workers reported the use of copper and chiral biphosphine ligands for the enantioselective 1,4-reduction of \(\alpha,\beta\)-unsaturated esters. Polymethylhydroxiloxane (PMHS) was employed as a stoichiometric hydride source.

**Comment:** Novel methodologies have been developed since this seminal report on the enantioselective hydrofunctionalization of alkenes. Use of DTBM-SEGPHOS as the ligand and other hydride sources are now available for the asymmetric reduction of less activated alkenes.