Enantio- and Diastereoselective $\alpha$-Allylation

**Significance:** A dual metal-catalyzed asymmetric allylation of $\alpha$-hydroxyketones is described. Chiral iridium and zinc complexes are employed for this transformation to furnish stereodefined $\alpha$-hydroxyketones.

**Comment:** Multi-metal asymmetric catalysis is a newly emerging field in catalysis. Exploitation of the preferential binding affinity of chiral ligands to specific metal centers allows chemo- and stereoselective formation of the desired products.