

**Significance:** List and co-workers report an asymmetric Mukaiyama aldolization controlled by a confined chiral imidodiphosphorimidate catalyst. By using catalysts 1 and 2, syn- or anti-aldol products can be obtained from (E)- or (Z)-enolsilanes, respectively, in high yields and with high diastereo- and enantioselectivities.

**Comment:** Compared with the reported pioneering work (S. E. Denmark, S. K. Ghosh Angew. Chem. Int. Ed. 2001, 40, 4759), this method presents an improved, fully atom- and step-economic strategy. Ultimately, it could streamline the syntheses of complex oligopropionates.