Enantioselective $\alpha$-Functionalization of Ketones

Significance: Hartwig and He developed an efficient and enantioselective method for the $\alpha$-functionalization of ketones by performing iridium-catalyzed allylic substitutions on silyl enol ethers.

Comment: The yields and enantio- or diastereoselectivities of this method are exceptionally high, making this protocol extremely useful for the synthesis of enantiomerically pure $\alpha$-substituted ketones. Additionally, not only N-, but also S-, O-, or C-nucleophiles were applicable to this method.