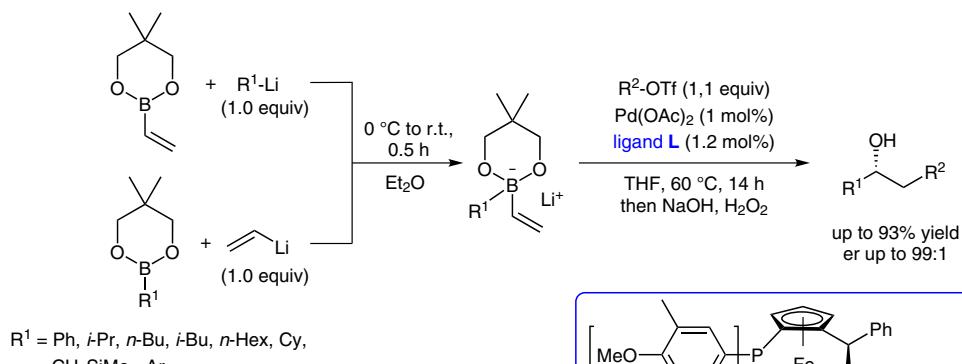
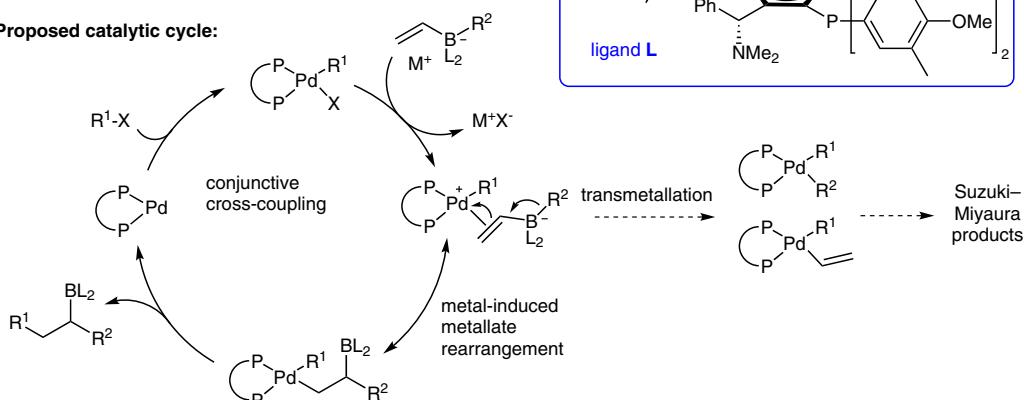


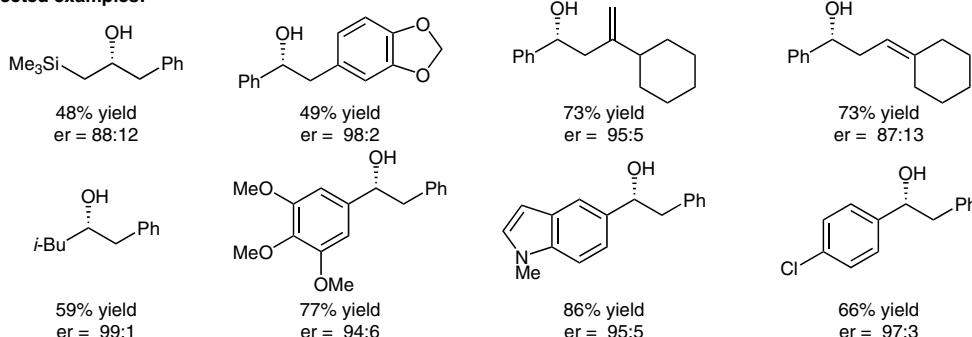
# Catalytic Conjunctive Cross-Coupling



**Proposed catalytic cycle:**



**Selected examples:**



**Significance:** Morken and co-workers report a catalytic conjunctive cross-coupling of organoborates, organolithium reagents and organotrihalides for the synthesis of chiral boronic acids with high enantioselectivity.

**Comment:** The intermediate boronic ester ate-complex reacts in a palladium-induced metallate rearrangement, wherein 1,2-migration of an alkyl or aryl group from the boron atom to the vinyl  $\alpha$ -carbon occurs simultaneously with C–Pd  $\sigma$ -bond formation.