



a, $\text{IC}_8\text{F}_{13}\text{H}_4$, tert-butyllithium , Et_2O , 59%; b, $(\text{CHOEt})_3$, 80%;
 c, Cl^- , 90%; d, t-BuOK , $[\text{Ir}(\text{COD})\text{Cl}]_2$