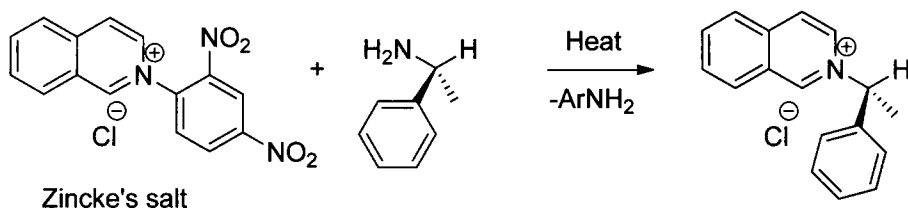
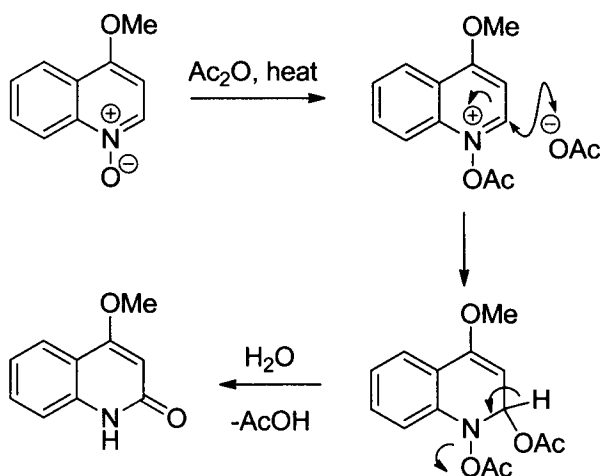


Another application of quinolinium and isoquinolinium salts is the formation of chiral salts following the use of Zincke's salt.²⁹ These products can be treated with nucleophiles (Grignard, stannane reagents, or even softer nucleophiles) to afford dihydroquinolines or isoquinolines diastereoselectively.³⁰



11.2.5 Amphiphilic Character of Quinoline-N-Oxides

Quinoline and isoquinoline *N*-oxides, formed by the action of peracids in quinoline and isoquinoline core, are useful synthetic precursors as they possess both electrophilic and nucleophilic character. The positive charge on nitrogen or the negative charge on oxygen atom can be delocalized to the α - or γ -positions, depending on demand from the reagent used.



Following exactly the same logic, quinoline and isoquinoline *N*-oxides can be easily transformed to the corresponding quinolinones or isoquinolin-ones in reaction with acetic anhydride or halogen-substituted