- Cyclopentadienyl metal hydrides can react in 3 different ways 1. Protonation, governed by the Lewis basicity of the central metal

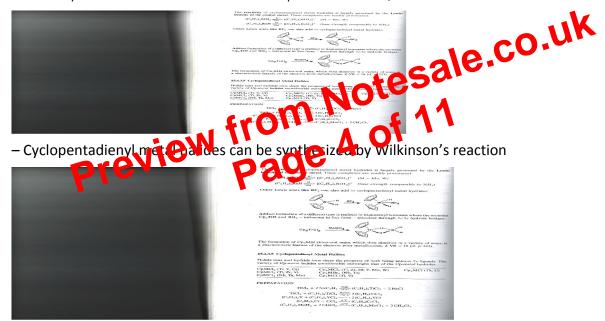






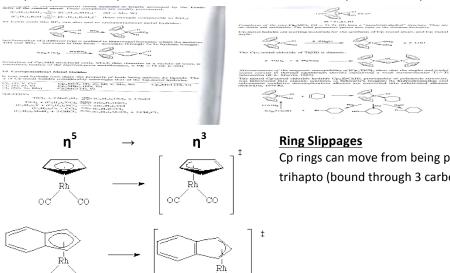
2. Using Lewis acids like BF, which can add to cyclopentadienyl metal halides

3. Adduct formation, when moieties associate through hydride bridges. The formation of Cp₂MH units which then dimerize in various ways is a characteristic feature of electron-poor metallocenes, where the number of valence electrons is less than 16



Cyclopentadienyl metal halides can react to form Cp-metal alkyls/Cp-metal aryls:

In Tanon



Cp rings can move from being pentahapto (bound 5 carbons) to being trihapto (bound through 3 carbons).