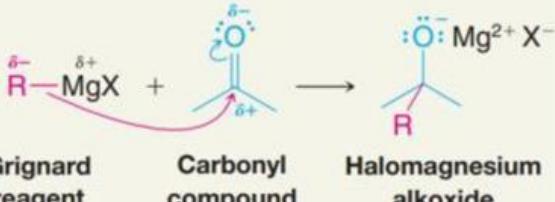
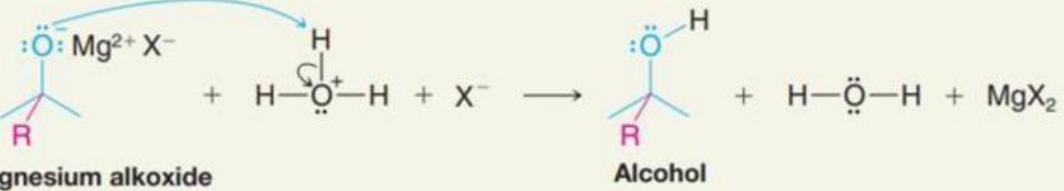
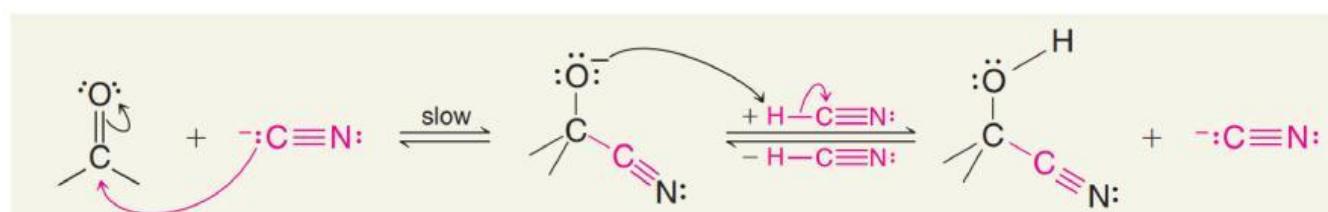


Fill in the blanks:

Grignard Reagent Mechanism

Step	Mechanism
Step 1	 <p>Grignard reagent Carbonyl compound Halomagnesium alkoxide</p>
Step 2	 <p>Halomagnesium alkoxide Alcohol</p> <p>In the second step, the addition of aqueous HX causes <i>protonation/deprotonation</i> of the alkoxide ion; this leads to the formation of the alcohol and MgX_2</p>

Reaction mechanism of Carbonyl with Cyanide ion to form Cyanohydrin.



Cyanide ion as a/an *electrophile/nucleophile* uses the electron pair to form a bond to the carbonyl carbon atom.

Deprotonation/Protonation of the alkoxide ion by HCN forming cyanohydrin.