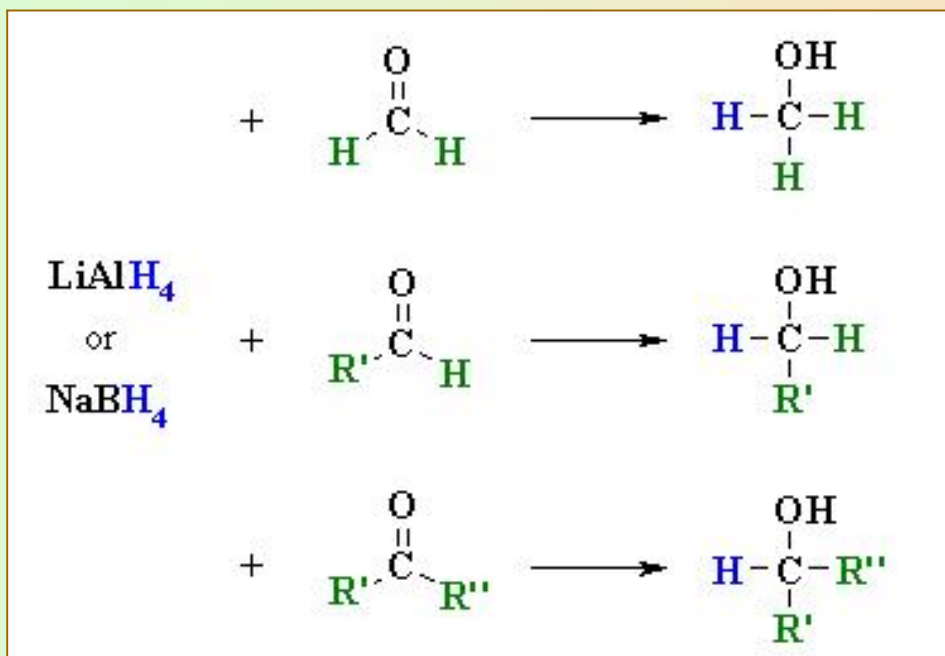


Reactions of Aldehydes and Ketones

Hydride reductions of aldehydes and ketones

Aldehydes and ketones are reduced with hydride reagents. The reducing agents LiAlH_4 and NaBH_4 act as a source H^- (hydride ion).

- Reduction of other aldehydes gives **primary** alcohols.
- Reduction of ketones gives **secondary** alcohols.



Oxidation of aldehydes

Aldehydes, $RCHO$, can be oxidised to carboxylic acids, RCO_2H . Ketones are not oxidised under these conditions as they lack the critical H for the elimination to occur.

Typical reagents are aqueous $Cr(VI)$ species:

Dichromate salts $Cr_2O_7^{2-}$

