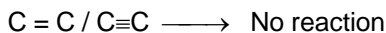
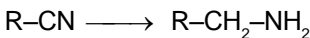
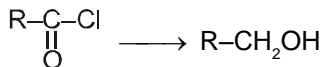
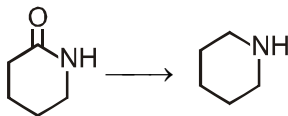
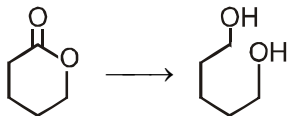
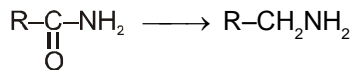
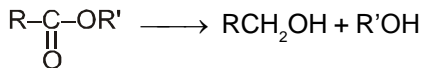
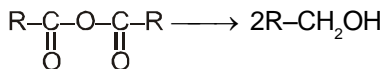
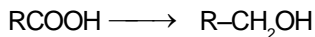
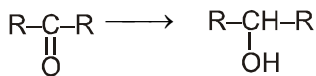
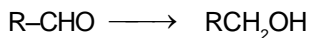
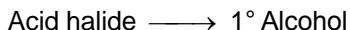
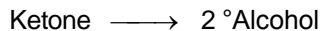
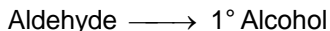


• Points to remember in Reduction

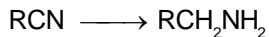
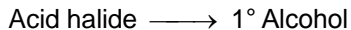
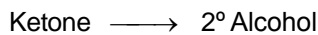
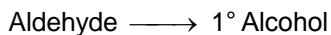
(1) LiAlH_4



(2) NaBH_4 , EtOH

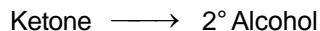
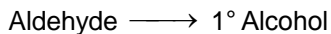


(3) Na/EtOH (Bouveault Blanc reduction)

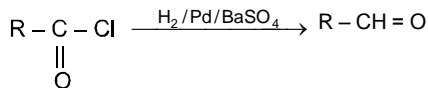


(4) Na-Hg/HCl or

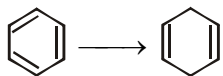
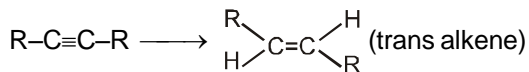
$\text{Al}[\text{OCHMe}_2]_3$ (MPV Reduction)



(5) Rosenmund's Reduction

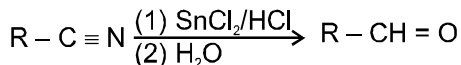


(6) Birch reduction
(Li/Na/K + Liquid NH₃)



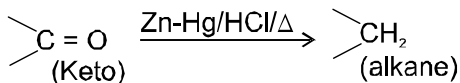
Note : Terminal alkynes not reduced

(7) Stephen's Reduction



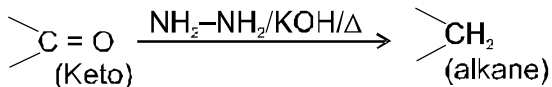
Note : DIBAL-H is also used for same conversion.

(8) Clemmensen Reduction



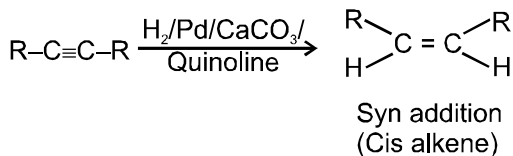
Avoid if acid sensitive groups are present in molecule.
e.g. C=C, C≡C, OH, OR,

(9) Wolff-Kishner Reduction



Avoid if base sensitive groups are present in molecule.
e.g. COOR, COX, CONH₂,
-CO-O-CO-, R-X

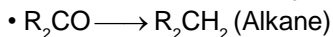
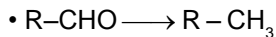
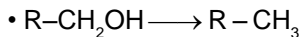
(10) Lindlar Catalyst



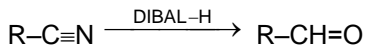
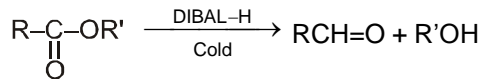
Note : H_2 , Pd, BaSO_4 is also used for same conversion.

(11) Red Phosphorus and HI

Almost all functional groups containing compounds convert into corresponding alkane by red P + HI.



(12) DIABAL-H reduction



At ordinary temperature esters are reduced to alcohols but at low temperature esters are reduced to aldehyde.