

DEPTH OF BIOLOGY

# ***CLEMMENSON REDUCTION***

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- Reduction of aldehyde and ketone and formation of alkane in the presence of clemmenson's reagent
- Clemmenson's reagent are zinc amalgam-  
 $\text{ZnHg}$  and concentrated  $\text{HCl}$

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- At first  $2e^-$  from  $Zn^{2+}$  attack carbon and oxygen respectively, which develops negative charge on both
- Now 2  $H^+$  atoms attack both C & O,  $OH^-$  is formed
- $H^+$  again attacks the compound and  $H_2O$  is removed resulting in +ve charge of carbon
- $1e^-$  again attacks and make the carbon -ve which is stabilized by attachment of  $H^+$

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