Class XI, CALORIMETRY (Change of State)

Thursday, December 2, 2021   8:02 PM

<u>Latent Heat</u> :

$-10°C$ $1 atm$

$Q \longrightarrow \boxed{\rightarrow m}$

$\underline{0°C}$
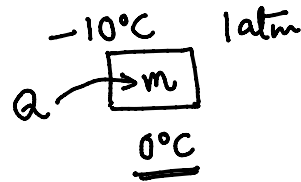
$Q \propto m$

$Q = Lm \Rightarrow Q = mL$ —①

$L \rightarrow$ Latent heat of the substance for a given change of state

The heat required during a change of state is directly proportional to the mass of the substance undergoing a change of state.

by Eq ① $L = \dfrac{Q}{m}$ —②

if $m = 1 kg$, $L = Q$

<u>Latent heat of Fusion</u> :

"The **latent heat of fusion** of a substance is the amount of heat given (or taken out) to convert unit mass of a substance from solid state to liquid state (or from liquid state to solid state) at its melting point".

①