

Class XI

- It cannot explain the catalytic activity of acids which is due to H^+ ions. As for Lewis acid it is not necessary to give H^+ ions, many Lewis acids will not have this property.



- Applicable only to aqueous solutions.

$$\text{Na}_2\text{O} + \text{H}_2\text{O} \rightleftharpoons 2\text{NaOH} \rightleftharpoons 2\text{Na}^+ + 2\text{OH}^-; \text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4\text{OH} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$$


It cannot explain the acidic or basic behaviour of substances where no proton transfer takes place *e.g.*



Limitations