

Solution

Actual concentration of H^+ ions or OH^- ions in an aqueous solution of an acid or base respectively depends upon the number of H^+ ions or OH^- ions furnished by one molecule of an acid or base respectively on ionization. This is given by basicity of an acid that number of H^+ ions furnished by one molecule of acid and acidity of a base that is number of OH^- ions furnished by one molecule of base.

Type of acid	Basicity	Examples
Monobasic acid	1	$HCl \rightarrow H^+ + Cl^-$ $HNO_3 \rightarrow H^+ + NO_3^-$ $CH_3COOH \rightarrow H^+ + CH_3COO^-$
Dibasic acid	2	$H_2SO_4 \rightarrow 2H^+ + SO_4^{2-}$ $H_2CO_3 \rightarrow 2H^+ + CO_3^{2-}$ $H_2C_2O_4 \rightarrow 2H^+ + C_2O_4^{2-}$
Tribasic acid	3	$H_3PO_4 \rightarrow 3H^+ + PO_4^{3-}$

Type of base	Acidity	Examples
Monoacidic base	1	$NaOH \rightarrow Na^+ + OH^-$ $KOH \rightarrow K^+ + OH^-$ $NH_4OH \rightarrow NH_4^+ + OH^-$
Diacidic base	2	$Ca(OH)_2 \rightarrow Ca^{+2} + 2OH^-$ $Ba(OH)_2 \rightarrow Ba^{+2} + 2OH^-$
Triacidic base	3	$Al(OH)_3 \rightarrow Al^{+3} + 3OH^-$