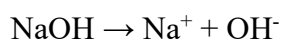
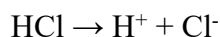


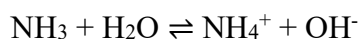
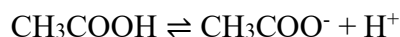
Writing Chemical Equations & Calculations in MS Word

1. Balanced Chemical Equations

A strong acid/base is one that fully dissociates in solution, e.g.:



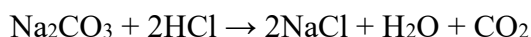
A weak acid/base only partially dissociates in solution, e.g.:



2. Worked Calculations

Question

23.1 cm³ of a solution of hydrochloric acid neutralised 25 cm³ of a 0.05 M solution of sodium carbonate. Calculate the molarity of the hydrochloric acid solution.



Let HCl be reagent a: then $M_a = ?$, $V_a = 23.1 \text{ cm}^3$ and $a = 2$.

Let Na₂CO₃ be reagent b: then $M_b = 0.05 \text{ M}$, $V_b = 25 \text{ cm}^3$ and $b = 1$.

Using the formula:

$$\frac{M_a V_a}{a} = \frac{M_b V_b}{b}$$

then:

$$\frac{M_a \times 23.1}{2} = \frac{0.05 \times 25}{1}$$

$$\frac{M_a \times 23.1}{2} = 1.25$$

$$M_a \times 23.1 = 2.5$$

$$M_a = 0.108 \text{ M}$$