

Potentiometry

potentiometric titration is an electrochemical Analytical method of analysis.

which is based on the measurement of change in the electrode potential of solution using two electrodes that is reference electrode and indicator electrode. In this titrant is added in the analyte solution change in potential is noted down.

At the end point there is a sharp change in potential on indicator electrode. Graph is plotted between the Indicator electrode potential and volume of titrant added. This method is used for determination of sharp end point.

Emf of an electrolyte cell can be calculated as follows

$$E_{\text{cell}} = E_{\text{reference}} + E_{\text{indicator}} + E_{\text{junction}}$$

There is linear relationship exist between the potential and pH of a solution at given temperature.

∴ some times pH instead of potential is determined.

$$E = K - 0.0591 \text{ pH}$$

$$\Delta E / \Delta \text{pH} = -0.0591$$

→ electrode potential

→ Constant potential

(The) graph is plotted between the electrode potential

volume of titrant against

