Titration

Titration is the slow addition of one solution of a known concentration to a known volume of another solution of un known concentration until the reaction reaches neutralization, which is often indicator by a color change.

*Acid – Base Titrations

Acid-Base titrations are usually used to find the amount of a known acidic or basic substance through acid –base reactions.

*Common indicators

Phenolphthalein

Methyl orange

Indicators

An indicator is a substance that has a distinctly different color when in an acidic or basic solution.A commonly used indicator for strong acid-strong base titrations phenolphthalein

Titration of 0.1M hydrochloric acid (HCl) with sodium carbonate(Na2CO3)

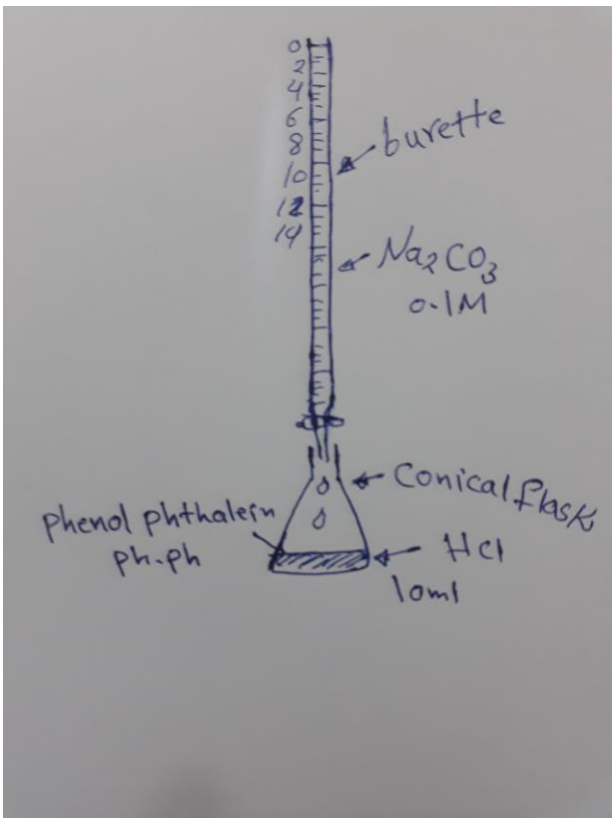
*Find the molarity of hydrochloric acid solution by titration it against 0.1M solution of sodium carbonate

*A burette is filled with the sodium carbonate solution of known Molarity

*Several drops of an indicators are added to the HCl and mixed by swirling the flask

*The stopcock of the burette is opened and sodium carbonate is slowly added to the acid while the flask is constantly swirled to insure mixing

*The stopcock is closed at the exact point a which the indicator just changes color



M X V=M X V

HCl Na2CO3