LC Chemistry

Titration Colour Changes

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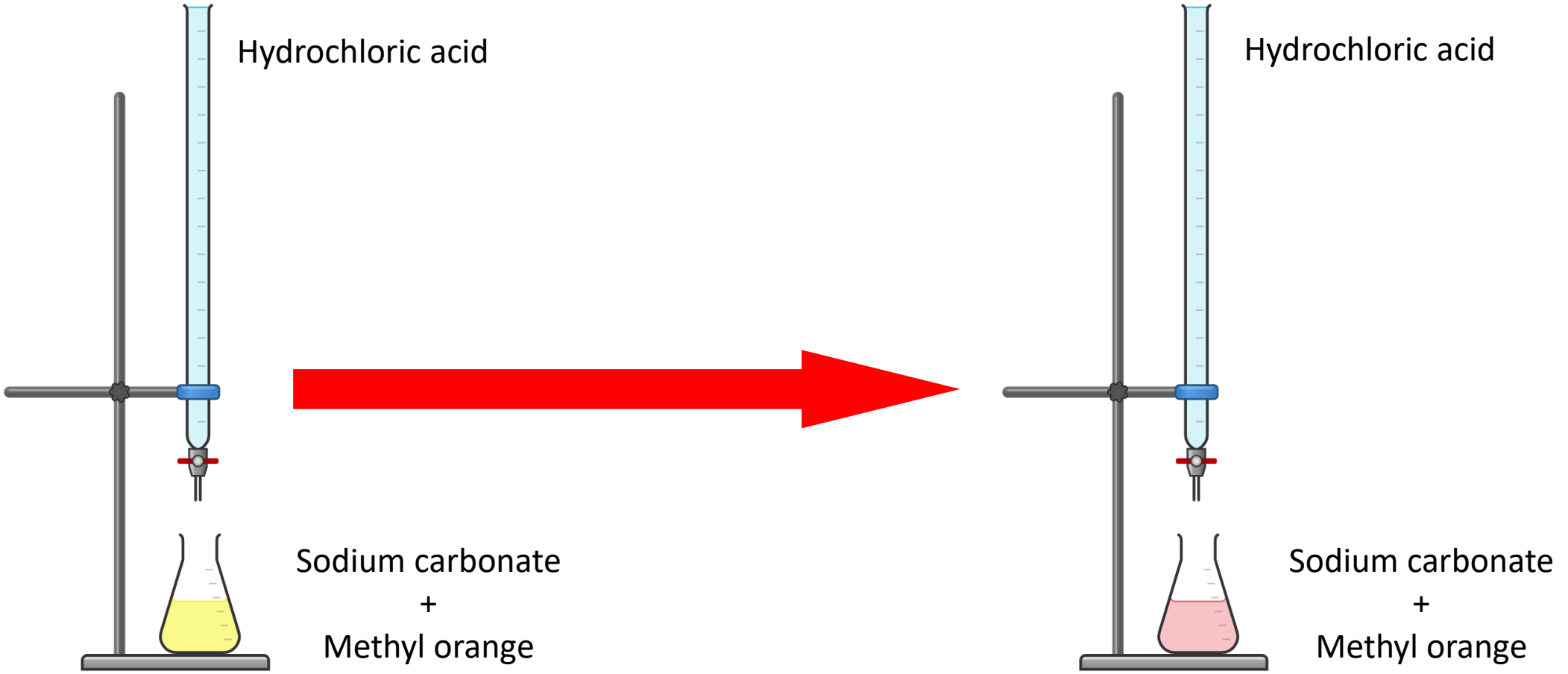
2022

Standardisation of a hydrochloric acid (HCl) solution using a standard solution of sodium carbonate (Na_2CO_3)

VIDEO LINK



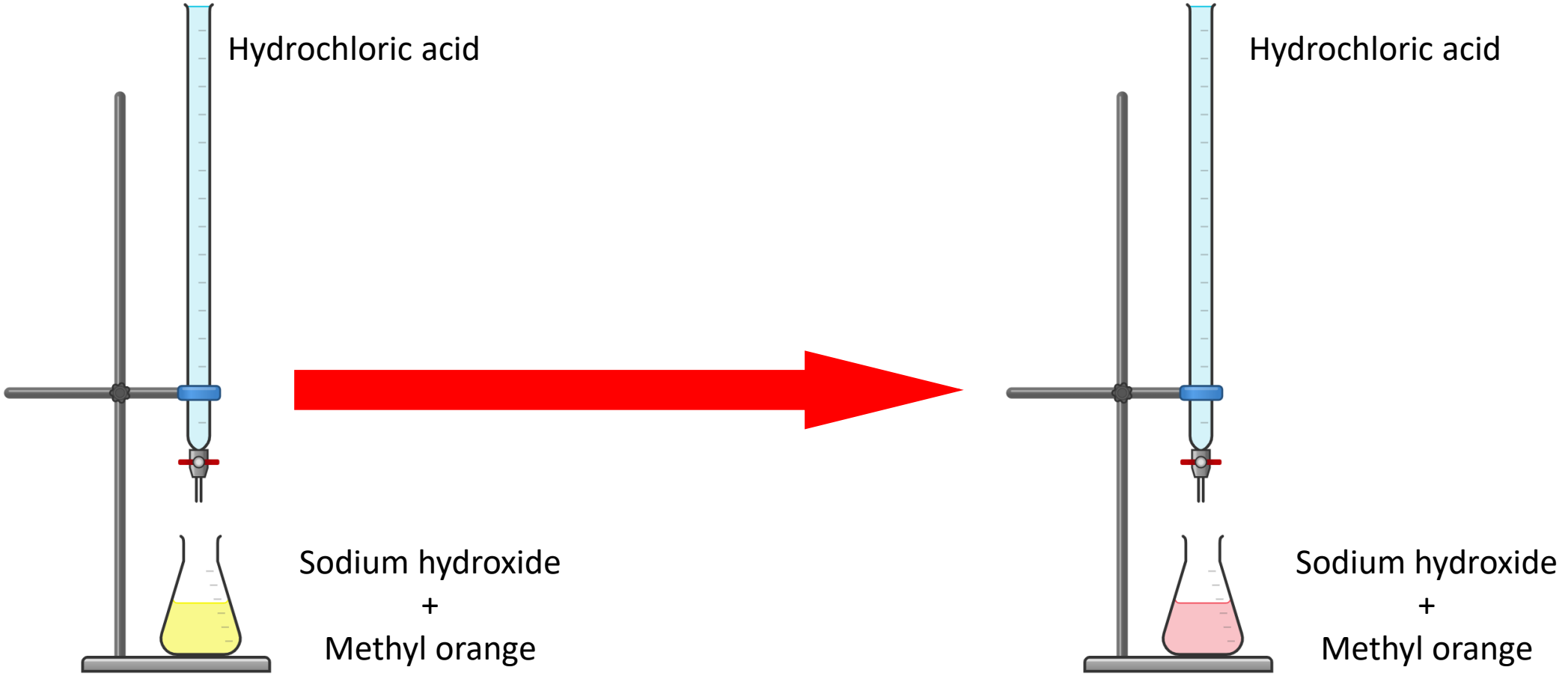
INDICATOR: methyl orange

COLOUR CHANGE: yellow – pink/peach

ORDINARY & HIGHER

A hydrochloric (HCl) acid/sodium hydroxide titration (NaOH) to make sodium chloride (NaCl) salt

VIDEO LINK

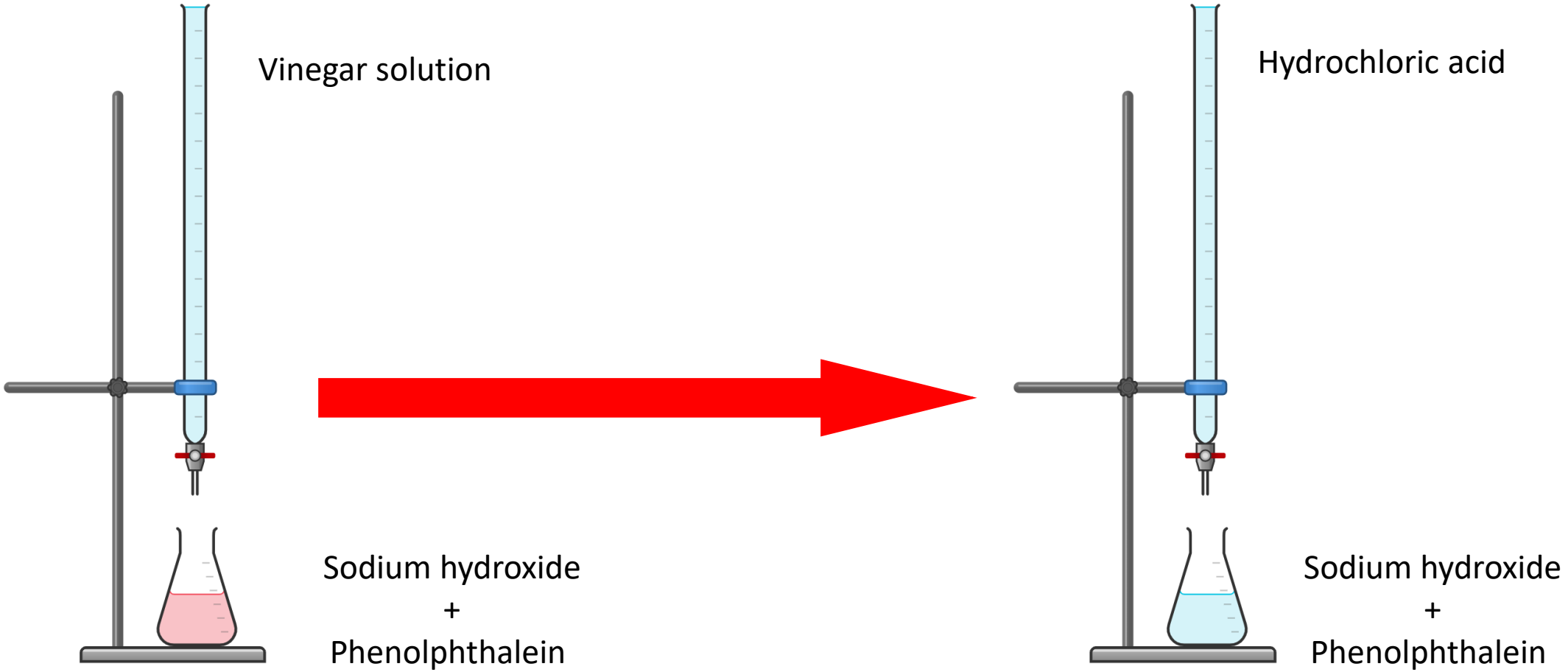


INDICATOR: methyl orange

COLOUR CHANGE: yellow – pink/peach

ORDINARY & HIGHER

Determination of the concentration of ethanoic acid (CH_3COOH) in vinegar



VIDEO LINK

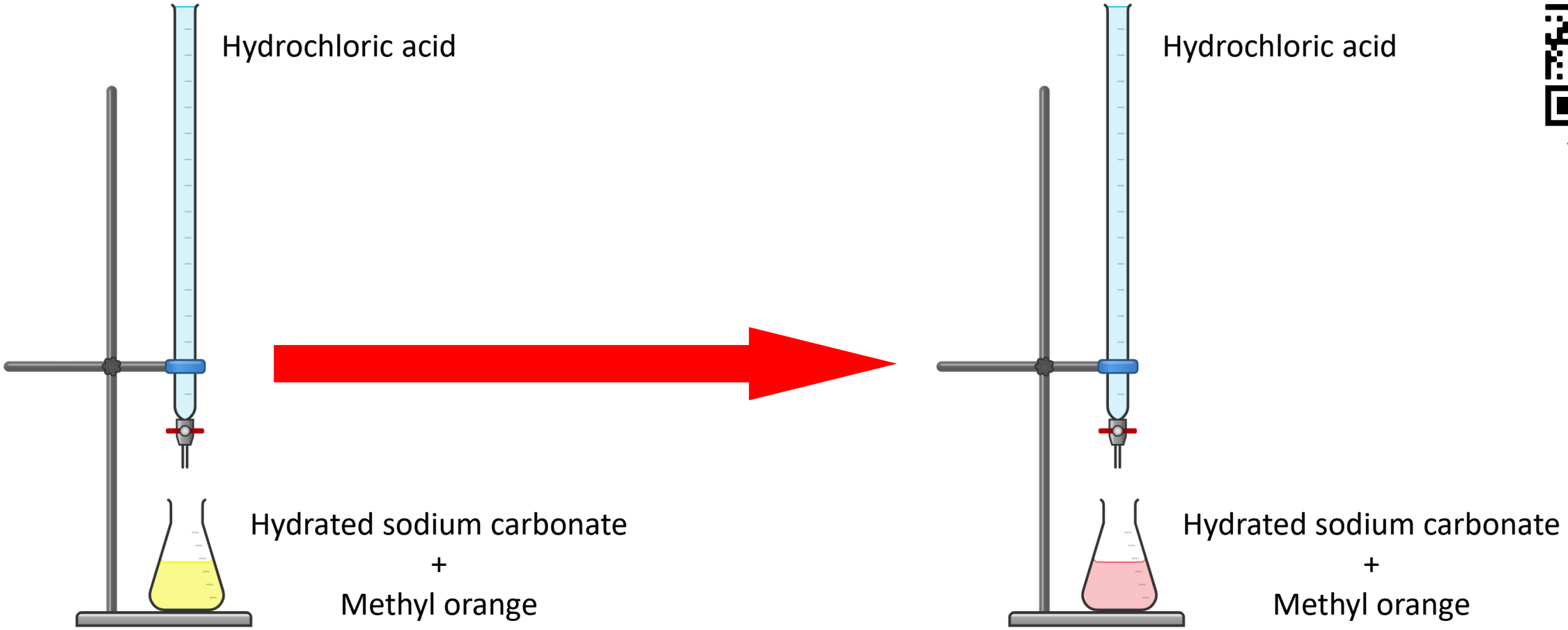
INDICATOR: phenolphthalein

COLOUR CHANGE: pink - colourless

HIGHER ONLY

Determination of water of crystallisation in hydrated sodium carbonate ($Na_2CO_3.xH_2O$) – washing crystals

VIDEO LINK



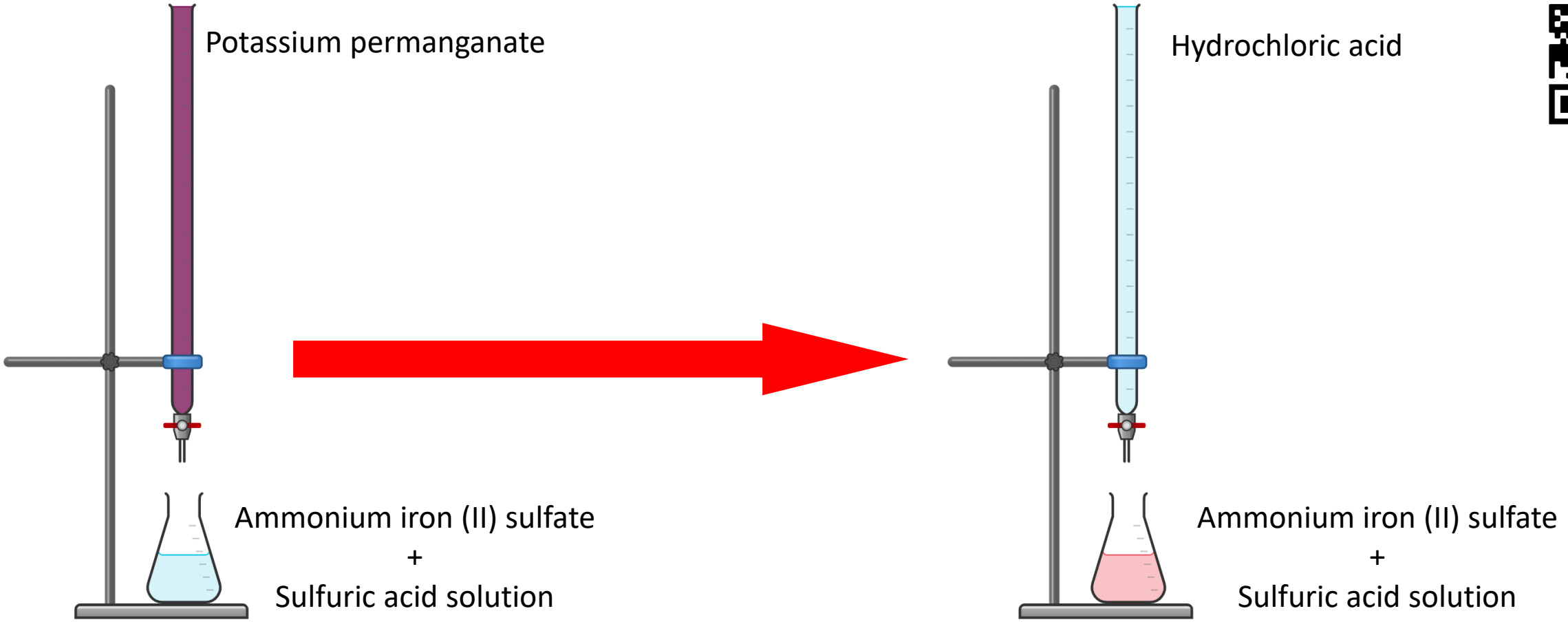
INDICATOR: methyl orange

COLOUR CHANGE: yellow – pink/peach

HIGHER ONLY

Standardisation of potassium permanganate solution, $KMnO_4$, using a standard solution of ammonium iron (II) sulfate, $(NH_4)_2Fe(SO_4)_2$

VIDEO LINK

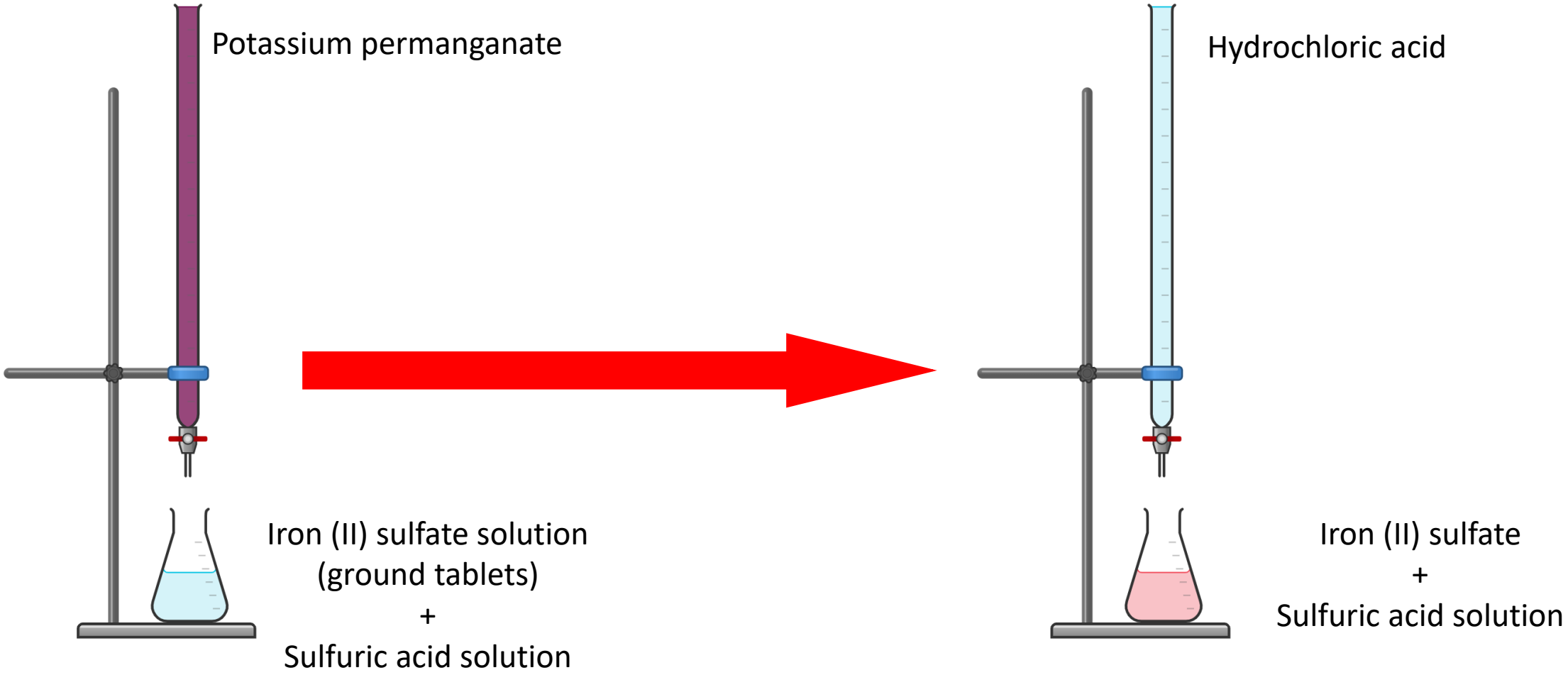


INDICATOR: potassium permanganate **COLOUR CHANGE:** colourless – pale pink

HIGHER ONLY

Estimation of iron (II) in an iron table using a standard solution of potassium manganate (VII), $KMnO_4$

VIDEO LINK

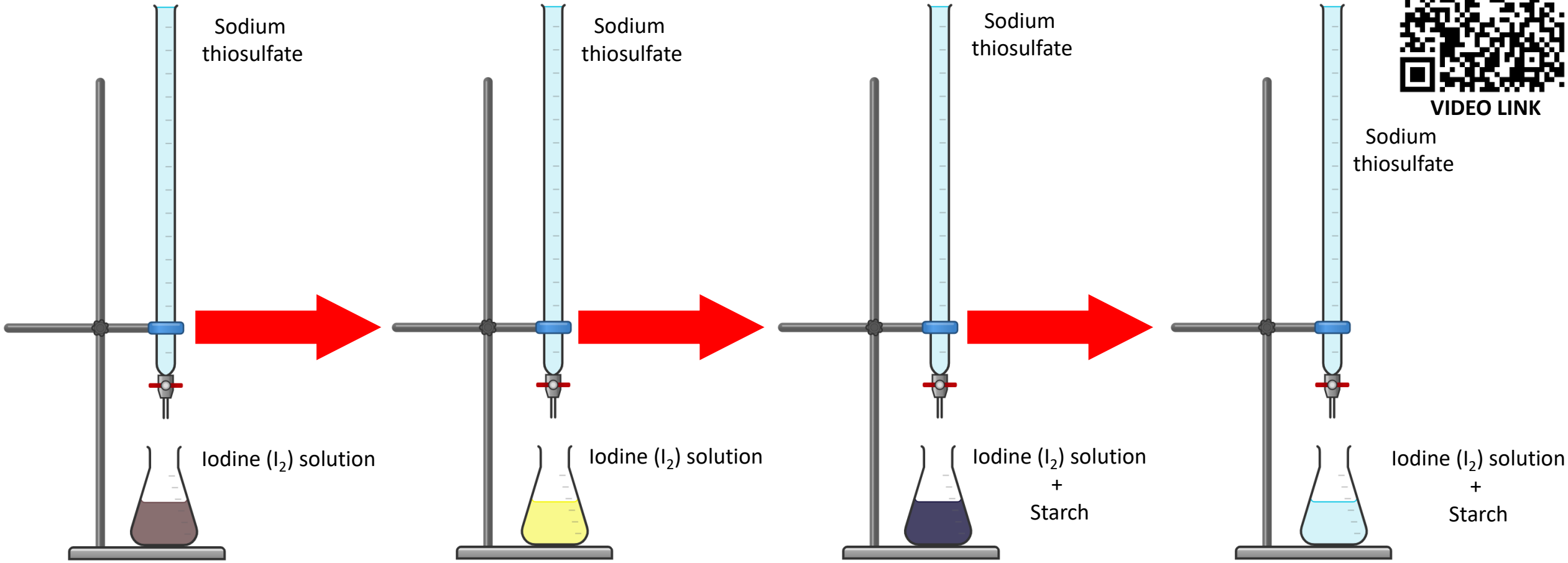


INDICATOR: potassium permanganate **COLOUR CHANGE:** colourless – pale pink

HIGHER ONLY

Standardisation of sodium thiosulfate, ($Na_2S_2O_3$), using a standard solution of iodine (I_2)

VIDEO LINK



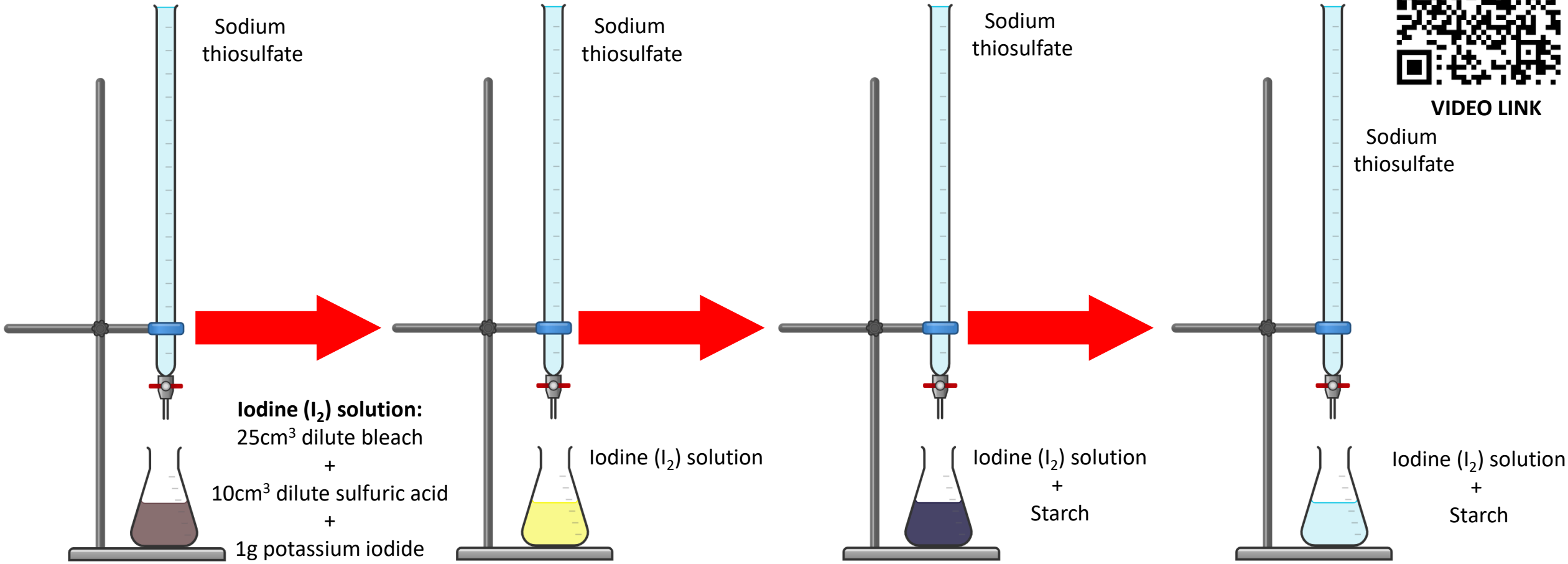
COLOUR CHANGE 1: brown to yellow

INDICATOR: starch

COLOUR CHANGE 2: blue-black to colourless

HIGHER ONLY

Determination of the percentage (w/v) of hypochlorite in bleach



VIDEO LINK

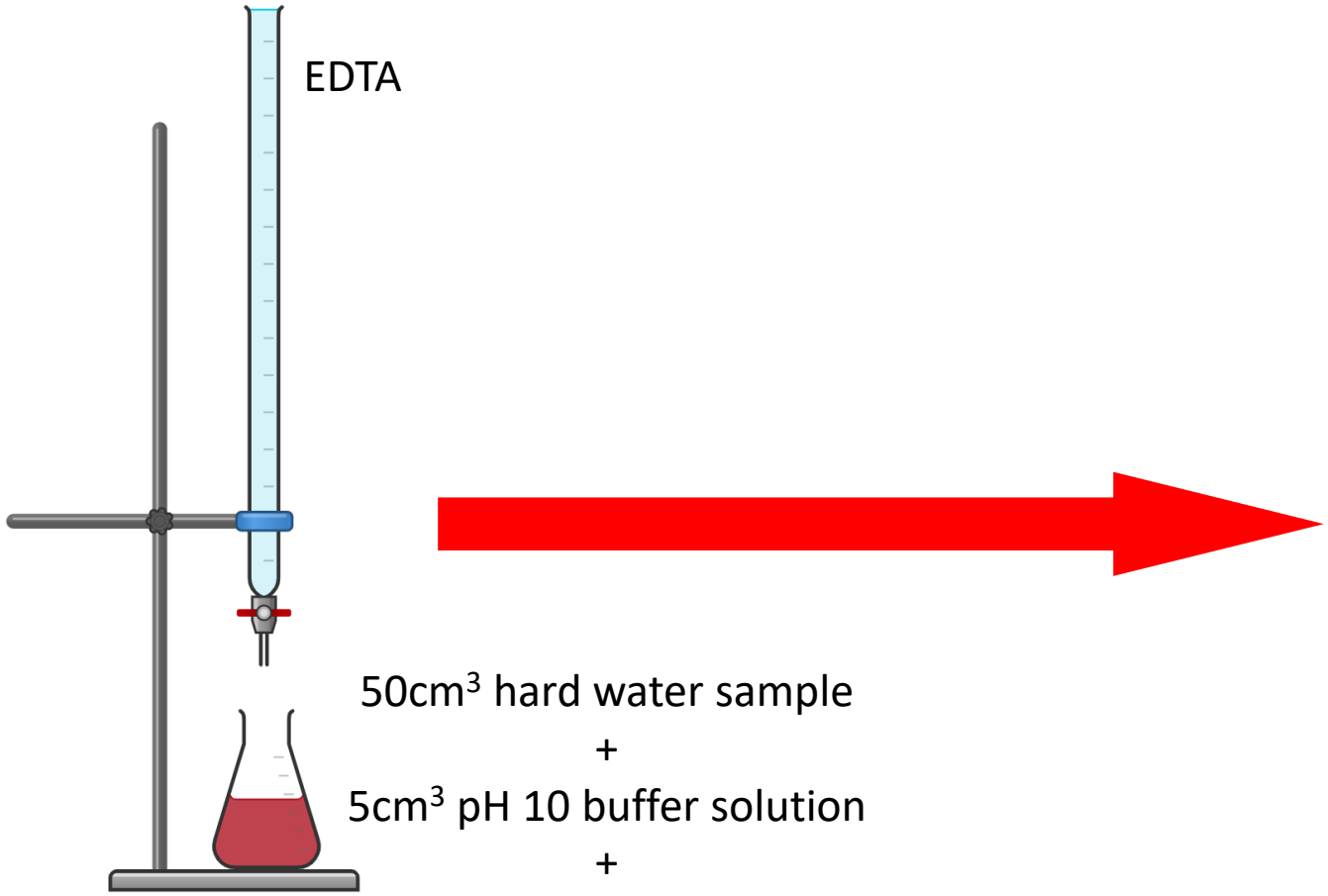
COLOUR CHANGE 1: brown to yellow

INDICATOR: starch

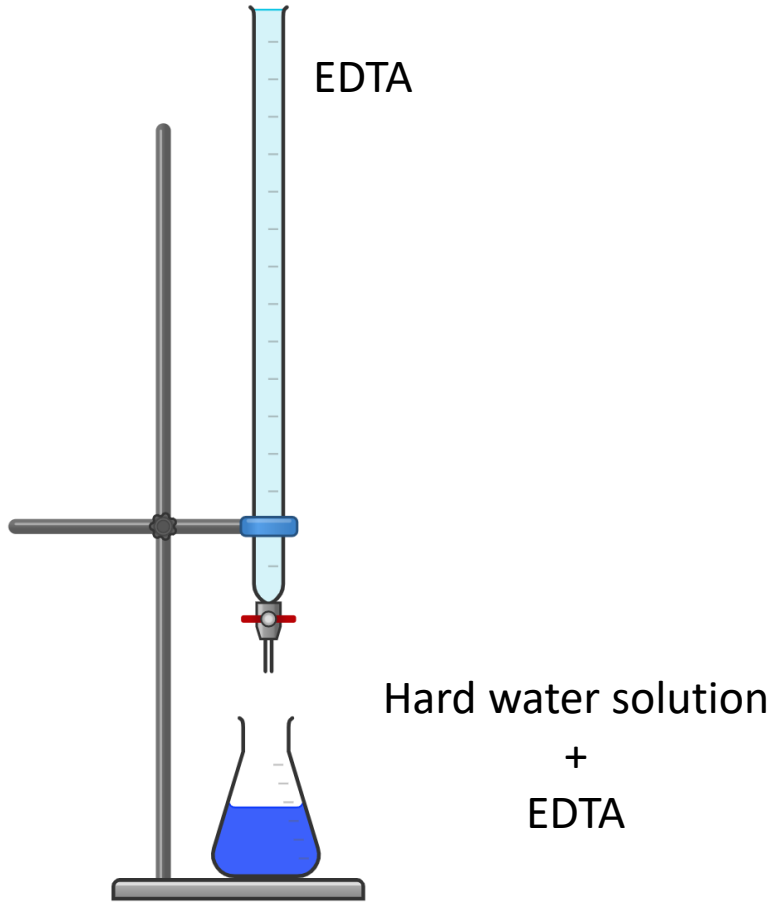
COLOUR CHANGE 2: blue-black to colourless

HIGHER ONLY

Estimation of the total hardness (Ca^{2+}) of a water sample using EDTA



$50cm^3$ hard water sample
+
$5cm^3$ pH 10 buffer solution
+
Eriochrome Black T



Hard water solution
+
EDTA

VIDEO LINK

INDICATOR: eriochrome black T

COLOUR CHANGE: wine red - blue

HIGHER ONLY