

CAIE Chemistry A-Level
Practicals for Papers 3 and 5
Evaporation & Crystallisation



What is evaporation and crystallisation?

It is simply heating a hydrous salt and until **all** the water evaporates and then calculating the mass of water that has evaporated.

Experiment Advice:

- Heat using an electric heater **gently**. This is to ensure that the crystals do not decompose under heating. (You can use Bunsen burner but adjust heating to ensure boiling isn't too vigorous.). For example, compounds such as nitrates will decompose on heating to form a pale brown gas of nitrogen dioxide. Gentle heating ensures the percentage yield remains high.
- Heat and weigh mass of solid crystals at **intervals**. When the weighed mass becomes **constant** you can finish. Mass becomes constant because all the water has evaporated.
- Use **before and after weighing method** - see measuring mass document.

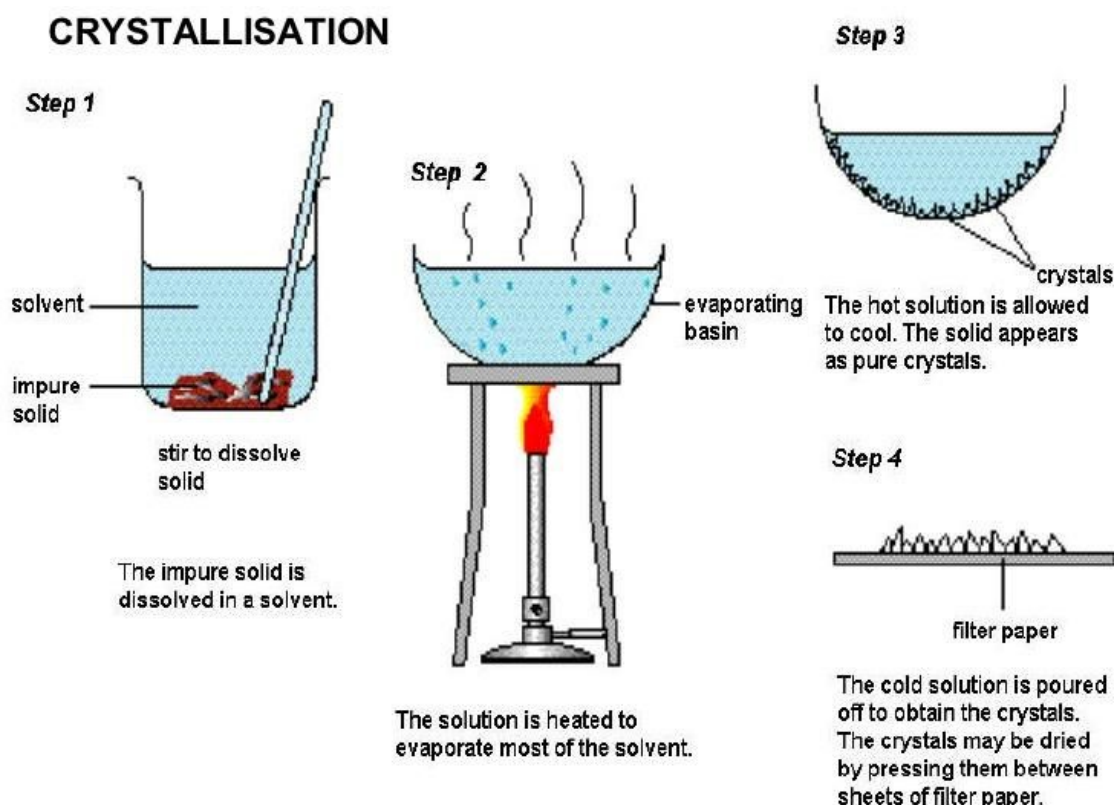


Image source:

<https://image.slidesharecdn.com/purification-of-substances-1-1222944911769062-8/95/purification-of-substances-1-37-728.jpg?cb=1222919739>

