

IGCSE Questions on Acids 2

- 5 (a) Fill in the gaps below to show how the soluble salt, sodium sulfate, could be made using titration. [14]

25 cm³ of was measured out using a

This was transferred to a and a few drops of added.

Sodium hydroxide was put in the and added to the until the changed colour.

This procedure was repeated using exactly but without the

The resulting solution was transferred to an and heated in order to When the solution was close to heating was stopped and the reaction mixture was until formed.

- (b) Write a balanced symbol equation for the reaction in (a) [3]

- 6 A student suggested the following method for making a pure, dry sample of sodium chloride crystals:

- Add excess solid sodium carbonate to 25 cm³ of 0.10 mol/dm³ hydrochloric acid
- Stir until the fizzing has stopped
- Filter off the excess sodium carbonate
- Heat the filtrate to evaporate off some of the water then allow to crystallise
- Filter off the crystals and allow to dry in a warm oven

Explain why this method will **not** work. [2]

- 7 A student suggested the following method to make a pure, dry sample of lead(II) sulfate.

- Add excess solid lead(II) oxide to 25 cm³ of hot 0.10 mol/dm³ sulfuric acid
- Stir then filter off the excess lead(II) oxide
- Heat the filtrate to evaporate off some of the water then allow to crystallise
- Filter off the crystals and allow to dry in a warm oven

Explain why this method will **not** work. [2]