

(Soluble salts (practical preparation))

Q1. (2018)

- use magnesium oxide and sulfuric acid
- add sulfuric acid to a beaker
- warm sulfuric acid
- add magnesium oxide
- stir
- continue adding until magnesium oxide is in excess

- filter
- using a filter paper and funnel
- to remove excess magnesium oxide

- heat solution in an evaporating basin
- to crystallisation point
- leave to crystallise
- pat dry with filter paper

Q2. a). (2021)

(Step 2) to speed up the reaction

(Step 5) to make sure all the (hydrochloric) acid reacts

(Step 6) to remove the excess magnesium oxide

Q2. b). (2021)

using a (boiling) water bath
or
using an electric heater

Q3. a). (2022)

(zinc oxide) solid remaining

Q3. b). (2022)

(excess) zinc oxide can be filtered off

Q3. c). (2022)

any **one** from:

- zinc hydroxide
- zinc carbonate

Q3. d). (2022)

heat (the solution) until
crystallisation point is reached

leave the solution (to cool /
crystallise)

Q4. (2023)

- use zinc carbonate and hydrochloric acid
- **add zinc carbonate to the (hydrochloric) acid**
- in a beaker
- stir
- **continue adding until the zinc carbonate is in excess**
- shown by excess solid
- and no more effervescence
- **filter (the reaction mixture)**
- to remove the excess zinc carbonate
- **heat the solution**
- using a water bath or electric heater
- to crystallisation point
- **leave the solution to crystallise**
- pat crystals dry with filter paper

Q5. a). (2024)

copper sulfate

water

Q5. b). (2024)

Chemical changes

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solid remains (in the mixture)

or

no more effervescence /
bubbles / fizzing

Q5. c). (2024)

to remove copper carbonate

Q5. d). (2024)

electric heater

or

water bath