

Q1.

What forms when a solution of sodium carbonate is added to a solution of gallium(III) nitrate?

- A** A white precipitate of gallium(III) carbonate.
- B** A white precipitate of gallium(III) hydroxide.
- C** A white precipitate of gallium(III) carbonate and bubbles of carbon dioxide.
- D** A white precipitate of gallium(III) hydroxide and bubbles of carbon dioxide.

(Total 1 mark)

Q2.

Which compound gives a colourless solution when an excess of dilute aqueous ammonia is added?

- A** MgCl_2
- B** AgCl
- C** CuCl_2
- D** AlCl_3

(Total 1 mark)

Q3.

What is the final species produced when an excess of aqueous ammonia is added to aqueous aluminium chloride?

- A** $[\text{Al}(\text{NH}_3)_6]^{3+}$
- B** $[\text{Al}(\text{OH})_3(\text{H}_2\text{O})_3]$
- C** $[\text{Al}(\text{OH})_4(\text{H}_2\text{O})_2]^-$
- D** $[\text{Al}(\text{OH})(\text{H}_2\text{O})_5]^{2+}$

(Total 1 mark)