

# OCR Chemistry A-Level

## PAG 04 - Qualitative analysis of ions

### Flashcards



Describe the chemical test for halide ions



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Add dilute nitric acid to react with carbonate ions so no  $\text{Ag}_2\text{CO}_3$  forms (white solid).

Add silver nitrate. Precipitate forms:

- White:  $\text{AgCl}$  (soluble in dilute ammonia)
- Cream:  $\text{AgBr}$  (soluble in concentrated ammonia)
- Yellow:  $\text{AgI}$  (insoluble in ammonia)



How can  $\text{SO}_4^{2-}$  ions be identified?



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Add aqueous barium nitrate. A white precipitate ( $\text{BaSO}_4$ ) will form if sulfate ions are present. This precipitate is insoluble in excess dilute strong acids.



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- Add aqueous acid
- If either ion is present bubbles of  $\text{CO}_2$  will be released
- Test the gas by bubbling it through limewater via a delivery tube. If it is  $\text{CO}_2$ , the limewater will turn cloudy



What are the solubilities of the first 3 group 2 metals (Mg, Sr, Ba) in sulfate solution?





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Sr - insoluble

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What are the solubilities of the first 3 group 2 metals (Mg, Sr, Ba) in sulfate solution?

Mg - soluble

Sr - soluble

Ba - insoluble

