

# Identification of Ions and Gases

## Mark Scheme 5

<b>Level</b>	IGCSE
<b>Subject</b>	Chemistry
<b>Exam Board</b>	CIE
<b>Topic</b>	Acids, Bases and Salts
<b>Sub-Topic</b>	Identification of Ions and Gases
<b>Paper Type</b>	Alternative to Practical
<b>Booklet</b>	Mark Scheme 5

**Time Allowed:** 57 minutes

**Score:** /47

**Percentage:** /100

- 1 (c) bubbles / fizz (1) [3]
- (d) yellow (1) [2]
- (f) carbon dioxide (1) [1]
- (g) ammonia (1) [1]
- (h) iron (1) II (1) ammonium [4]
- [Total: 11]

- 2 (a) (i) Q blue/purple (1) 11–14 (1) [2]
- (ii) Q no reaction/change (1) [2]
- R bubbles/fizz (1)
- (c) bubbles/fizz (1) [3]
- limewater (1) milky (1)
- (e) green (1) precipitate (1) [2]
- (f) hydrogen (1) [1]
- (g) carbon dioxide (1) [1]
- (h) hydrochloric acid/HCl (1)
- (i) weak (1) acid (1) [2]

- 3 (a) Boxes completed tubes (1)  
hydrochloric acid (1)  
electrodes (1) [3]
- (b) Electrolysis (1) [1]
- (c) Litmus paper (1), bleaches/white (1) [2]
- 4 (a) To extract the colour owtte (1) [1]
- (b) To remove solid/insoluble impurities (1) [1]
- (c) Heating/evaporation (1) [1]
- (d) Diagram showing spots (1) 3 at different levels (1) [2]
- 5 (b) (i) white (1), precipitate (1), dissolves/soluble (1) [3]
- (ii) white (1), precipitate (1), dissolves/soluble (1) [3]
- (d) reference to water (1) e.g. hydrated salt [1]
- (e) sulphate (1), not a chloride (1) [2]
- (f) carbon dioxide (1), from a carbonate (1) [2]