

IGCSE Chemistry (9-1) Specification 2(h)

(h) Chemical tests

Students should:

2.44 describe tests for these gases:

- hydrogen
- oxygen
- carbon dioxide
- ammonia
- chlorine

2.45 describe how to carry out a flame test

2.46 know the colours formed in flame tests for these cations:

- Li^+ is red
- Na^+ is yellow
- K^+ is lilac
- Ca^{2+} is orange-red
- Cu^{2+} is blue-green

2.47 describe tests for these cations:

- NH_4^+ using sodium hydroxide solution and identifying the gas evolved
- Cu^{2+} , Fe^{2+} and Fe^{3+} using sodium hydroxide solution

2.48 describe tests for these anions:

- Cl^- , Br^- and I^- using acidified silver nitrate solution
- SO_4^{2-} using acidified barium chloride solution
- CO_3^{2-} using hydrochloric acid and identifying the gas evolved

2.49 describe a test for the presence of water using anhydrous copper(II) sulfate

2.50 describe a physical test to show whether a sample of water is pure