**Tests for negative ions**

**Carbonate test**

1 Half fill a test tube with limewater and put in a test-tube rack.

2 Half fill a second test tube with the solution to be tested, and mount at a 45° angle using the stand, boss, and clamp.

3 Add about 2 cm3 of dilute hydrochloric acid and quickly insert the bung and delivery tube end so that any gas that is made is bubbled through the limewater.

4 Observe to see if the limewater goes cloudy.

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| Chemical | Observations |
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**Halide test**

1 Add two drops of the solution to be tested into a dimple on a spotting tile.

2 Then add two drops of nitric acid solution and two drops of silver nitrate solution. Note the colour of any precipitate formed.

3 Record the colour of the precipitate for chloride, bromide and iodide ions.

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| Chemical | Observations |
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**Sulfate test**

1 Add two drops of the solution to be tested into a dimple.

2 Then add two drops of hydrochloric acid solution and two drops of barium chloride solution.

3 If a white precipitate is formed then sulfate ions were present in the starting sample.

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| Chemical | Observations |
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