The Periodic Table – solubility of sulphates and carbonates of Groups 1 and 2

In this experiment you will be looking to see whether precipitates form when you add drops of solutions of sulphates or carbonates to drops of solutions of Group 1 or 2 metal ions.

Students must wear eye protection.

Instructions

1. Cover the worksheets with a clear plastic sheet.
2. Put two drops of each of the metal ion solutions in each box of the appropriate row.
3. Add two drops of each of the anion solutions to the appropriate columns.
4. Observe and interpret your observations.

Group 1	Solution of sulphate ions	Solution of carbonate ions
Solution of lithium ions		
Solution of sodium ions		
Solution of potassium ions		

Group 2	Solution of sulphate ions	Solution of carbonate ions
Solution of magnesium ions		
Solution of calcium ions		
Solution of strontium ions		
Solution of barium ions		

Question

1. How do you account for your observations?

Health & Safety

Students must wear eye protection.

Magnesium nitrate, 0.5 mol dm^{-3} $MgNO_3.6H_2O$ (aq), Calcium nitrate, 0.5 mol dm^{-3} $Ca(NO_3)_2.4H_2O$ (aq), Strontium nitrate, 0.5 mol dm^{-3} $Sr(NO_3)_2.4H_2O$ (aq) and Barium nitrate, 0.2 mol dm^{-3} $Ba(NO_3)_2$ are skin/eye irritants

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Sodium sulphate, 0.5 mol dm^{-3} Na_2SO_4(aq), Sodium chloride, 0.5 mol dm^{-3} NaCl (aq), Lithium bromide, 1 mol dm^{-3} LiBr (aq) and Potassium bromide, 0.2 mol dm^{-3} KBr (aq) are low hazard.

Sodium carbonate, 0.5 mol dm^{-3} $Na_2CO_3.10H_2O$ is a skin/eye irritant

Credits

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Health & safety checked May 2018

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