

Double Replacement Reactions (Pg. 163-164)

Two compounds react to produce two new compounds.

What happens in a double replacement reaction?

In what form do double replacement reactions usually occur?

What is a precipitate?

What happens when X-rays pass through soft tissue?

How do X-ray technicians get around the problem of X-rays passing through soft tissue?

What is produced when barium chloride and sodium sulfate are mixed?

What is the purpose of a pacemaker?

Experiment 1: Potassium Iodide and Lead (II) Nitrate

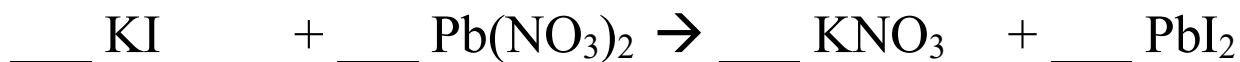
Procedure:

1. Pour potassium iodide solution into a test tube to a depth of about 2 cm
2. Pour lead (II) nitrate solution into a test tube to a depth of about 2 cm
3. Pour one solution into the other solution. Wait for three minutes. Record your observations.

Observations? What happened?

What are the names of the two metal ions involved in this experiment?

Balance this Chemical Equation:



Bohr Diagrams

Bohr Diagrams

Bohr Diagrams

Bohr Diagrams



Experiment 2: Copper (II) Sulfate and Lead (II) Nitrate

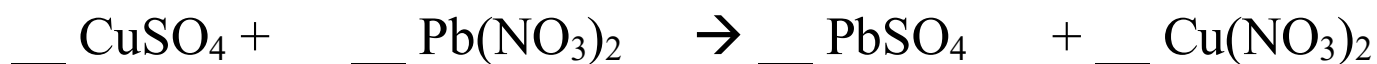
Procedure:

1. Pour lead (II) nitrate solution into a test tube to a depth of about 2 cm.
2. Pour copper (II) sulfate solution into a test tube to a depth of about 2 cm.
3. Pour one solution into the other solution. Wait for three minutes. Record your observations.

Observations? What happened?

What are the names of the two polyatomic ions involved in this experiment?

Balance this Chemical Equation:



Bohr Diagrams

Bohr Diagrams

Bohr Diagrams

Bohr Diagrams

Experiment 3: Calcium Chloride and Sodium Phosphate

Procedure:

1. Pour calcium chloride solution into a test tube to a depth of about 2 cm.
2. Pour sodium phosphate solution into a test tube to a depth of about 2 cm.
3. Pour one solution into the other solution. Wait for three minutes. Record your observations.

Observations? What happened?

Which metal ion ends up with phosphate?

Balance this Chemical Equation:



Bohr Diagrams

Bohr Diagrams

Bohr Diagrams

Bohr Diagrams

Analysis

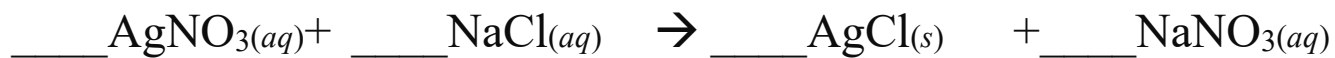
In the first experiment, does a precipitate form?

In the second experiment, would we expect the mass to decrease (did bubbles escape)?

What evidence is there that a reaction occurred in the third experiment?

In the 3rd experiment, what are the names of the two substances that formed?

Summarize, in your own words, how you predict the products of double replacement reactions.

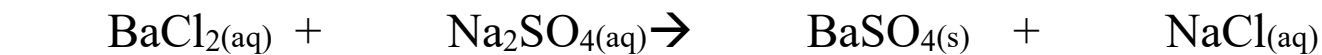


Bohr Diagrams

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