Reactions Activity

Biology

Please note – during ALL reactions, you should wear safety goggles and a lab apron. In the first three reactions, you should wear rubber gloves. In the last reaction (burning magnesium), you should NOT wear gloves. Record all your responses individually, using your own sheet of paper.

When you are finished with each reaction, please dump the contents of all test tubes into the appropriate waste beakers.

Reaction 1: Zinc (Zn) metal + Copper Sulfate ($CuSO_4$) solution

a) Place one piece of zinc metal into a test tube
b) **Record** your visual observations of the zinc metal on your paper
c) Add just enough copper sulfate to cover the zinc metal and let sit for several minutes
d) **Record** your visual observations of the reaction and the products on your paper
e) Determine the proper chemical reaction formula for this reaction. On your paper, **write** this equation and **identify** it as a single-replacement, double-replacement, synthesis, or decomposition reaction

Reaction 2: Potassium Iodide (KI) solution + Lead Nitrate ($Pb(No_3)_2$) solution

a) Place five drops of KI into a test tube
b) **Record** your visual observations of the KI solution on your paper
c) Place five drops of $Pb(NO_3)_2$ into a second test tube
d) **Record** your visual observations of the $Pb(NO_3)_2$ on your paper
e) Pour the contents of the first test tube into the second test tube and **record** your visual observations of this reaction and the products on your paper
f) Determine the proper chemical reaction formula for this reaction. On your paper, **write** this equation and **identify** it as a single-replacement, double-replacement, synthesis, or decomposition reaction

Please note – during ALL reactions, you should wear safety goggles and a lab apron. In the first three reactions, you should wear rubber gloves. In the last reaction (burning magnesium), you should NOT wear gloves. Record all your responses individually, using your own sheet of paper.

When you are finished with each reaction, please dump the contents of all test tubes into the appropriate waste beakers.

Reaction 3: Copper (Cu) metal + Silver Nitrate ($AgNO_3$) solution

a) Place five drops of the silver nitrate solution into a test tube
b) **Record** your visual observations of the silver nitrate solution on your paper
c) Add a small piece of copper metal to the test tube and let sit for a minute
d) **Record** your visual observations of the reaction and its products on your paper
e) Determine the proper chemical reaction formula for this reaction. On your paper, **write** this equation and **identify** it as a single-replacement, double-replacement, synthesis, or decomposition reaction

Reaction 4: Burning Magnesium

a) *Remove your rubber gloves* before beginning this reaction
a) **Record** your visual observations of the magnesium metal on your paper
b) Pick up a piece of magnesium metal with the tongs
c) Do NOT look directly at this reaction – please be EXTREMELY careful
d) Hold the magnesium metal above the flame of the Bunsen burner
e) **Record** your visual observations of the reaction and its products on your paper
e) The reaction you observed was magnesium metal combining with oxygen gas. Determine the proper chemical reaction formula for this reaction. On your paper, **write** this equation and **identify** it as a single-replacement, double-replacement, synthesis, or decomposition reaction