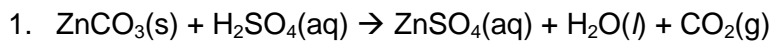


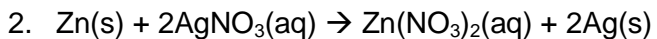
Practice Problems

Write the net ionic equations for the following chemical reactions:



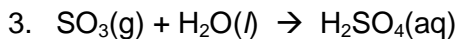
I.E. _____

N.I.E. _____



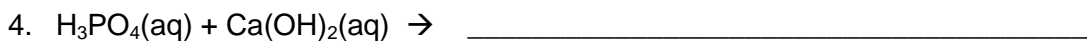
I.E. _____

N.I.E. _____



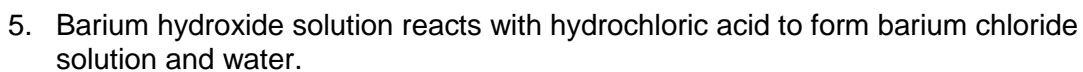
I.E. _____

N.I.E. _____



I.E. _____

N.I.E. _____



B.C.E. _____

I.E. _____

N.I.E. _____

6. Barium nitrate solution reacts with potassium carbonate solution to form a white precipitate.

B.C.E. _____

I.E. _____

N.I.E. _____

7. Solid barium oxide reacts with a solution of perchloric acid.

B.C.E. _____

I.E. _____

N.I.E. _____

8. Sodium phosphate solution reacts with silver nitrate solution to form a beige precipitate.

B.C.E. _____

I.E. _____

N.I.E. _____

9. Ammonium sulfate solution reacts with barium hydroxide solution.

B.C.E. _____

I.E. _____

N.I.E. _____

10. Magnesium metal reacts with copper(II) chloride solution to form copper metal and a colourless solution.

B.C.E. _____

I.E. _____

N.I.E. _____

Answers to Practice Problems

- $$\text{ZnCO}_3(\text{s}) + 2\text{H}^+(\text{aq}) \rightarrow \text{Zn}^{2+}(\text{aq}) + \text{H}_2\text{O}(\text{l}) + \text{CO}_2(\text{g})$$
- $$\text{Zn}(\text{s}) + 2\text{Ag}^+(\text{aq}) \rightarrow \text{Zn}^{2+}(\text{aq}) + 2\text{Ag}(\text{s})$$
- $$\text{SO}_3(\text{g}) + \text{H}_2\text{O}(\text{l}) \rightarrow 2\text{H}^+(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$$
- $$2\text{H}_3\text{PO}_4(\text{aq}) + 3\text{Ca}(\text{OH})_2(\text{aq}) \rightarrow \text{Ca}_3(\text{PO}_4)_2(\text{s}) + 6\text{H}_2\text{O}(\text{l})$$
$$2\text{H}_3\text{PO}_4(\text{aq}) + 3\text{Ca}^{2+}(\text{aq}) + 6\text{OH}^-(\text{aq}) \rightarrow \text{Ca}_3(\text{PO}_4)_2(\text{s}) + 6\text{H}_2\text{O}(\text{l})$$
- $$\text{Ba}(\text{OH})_2(\text{aq}) + 2\text{HCl}(\text{aq}) \rightarrow \text{BaCl}_2(\text{aq}) + 2\text{H}_2\text{O}(\text{l})$$
$$\text{H}^+(\text{aq}) + \text{OH}^-(\text{aq}) \rightarrow \text{H}_2\text{O}(\text{l})$$
- $$\text{Ba}(\text{NO}_3)_2(\text{aq}) + \text{K}_2\text{CO}_3(\text{aq}) \rightarrow \text{BaCO}_3(\text{s}) + 2\text{KNO}_3(\text{aq})$$
$$\text{Ba}^{2+}(\text{aq}) + \text{CO}_3^{2-}(\text{aq}) \rightarrow \text{BaCO}_3(\text{s})$$
- $$\text{BaO}(\text{s}) + 2\text{HClO}_4(\text{aq}) \rightarrow \text{Ba}(\text{ClO}_4)_2(\text{aq}) + \text{H}_2\text{O}(\text{l})$$
$$\text{BaO}(\text{s}) + 2\text{H}^+(\text{aq}) \rightarrow \text{Ba}^{2+}(\text{aq}) + \text{H}_2\text{O}(\text{l})$$
- $$\text{Na}_3\text{PO}_4(\text{aq}) + 3\text{AgNO}_3(\text{aq}) \rightarrow \text{Ag}_3\text{PO}_4(\text{s}) + 3\text{NaNO}_3(\text{aq})$$
$$\text{PO}_4^{3-}(\text{aq}) + 3\text{Ag}^+(\text{aq}) \rightarrow \text{Ag}_3\text{PO}_4(\text{s})$$
- $$(\text{NH}_4)_2\text{SO}_4(\text{aq}) + \text{Ba}(\text{OH})_2(\text{aq}) \rightarrow \text{BaSO}_4(\text{s}) + 2\text{NH}_3(\text{g}) + 2\text{H}_2\text{O}(\text{l})$$
$$2\text{NH}_4^+(\text{aq}) + \text{SO}_4^{2-}(\text{aq}) + \text{Ba}^{2+}(\text{aq}) + 2\text{OH}^-(\text{aq}) \rightarrow \text{BaSO}_4(\text{s}) + 2\text{NH}_3(\text{g}) + 2\text{H}_2\text{O}(\text{l})$$
- $$\text{Mg}(\text{s}) + \text{CuCl}_2(\text{aq}) \rightarrow \text{Cu}(\text{s}) + \text{MgCl}_2(\text{aq})$$
$$\text{Mg}(\text{s}) + \text{Cu}^{2+}(\text{aq}) \rightarrow \text{Cu}(\text{s}) + \text{Mg}^{2+}(\text{aq})$$