

Net Ionic Equations WS I

2000, 2001, & 2002
Net Ionic Equations WS i.doc

Name _____

Date _____

Period _____

Write the formulas to show the reactants and the products for the laboratory situations described below. In all cases, a reaction occurs. Assume solutions are aqueous unless otherwise indicated. Represent substances in solution as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction. You need not balance the equations.

Example: A strip of magnesium is added to a solution of silver nitrate.

Answer to example: $\text{Mg} + \text{Ag}^+ \rightarrow \text{Mg}^{2+} + \text{Ag}$

1. A small piece of calcium metal is added to hot distilled water.
2. Butanol is burned in air.
3. Excess concentrated ammonia solution is added to a solution of nickel (II) sulfate.
4. A solution of copper (II) chloride is added to a solution of sodium sulfide.
5. A solution of tin (II) nitrate is added to a solution of silver nitrate.
6. Excess hydrobromic acid solution is added to a solution of potassium hydrogen carbonate.
7. Powdered strontium oxide is added to distilled water.
8. Carbon monoxide gas is passed over hot iron (III) oxide.
9. Sulfur dioxide gas is bubbled into distilled water.
10. A drop of potassium thiocyanate solution is added to a solution of iron (III) nitrate.
11. A piece of copper wire is placed in a solution of silver nitrate.
12. Solutions of potassium hydroxide and propanoic acid are mixed.
13. A solution of iron (II) chloride is added to an acidified solution of sodium dichromate.
14. Chlorine gas is bubbled through a solution of potassium bromide.
15. Solutions of strontium nitrate and sodium sulfate are mixed.
16. Powdered magnesium carbonate is heated strongly.
17. A solution of sodium iodide is added to a solution of lead (II) acetate.
18. Pure solid phosphorus (white form) is burned in air.
19. Solid cesium oxide is added to water.
20. Excess concentrated hydrochloric acid is added to a 1.0 M solution of cobalt (II) chloride.
21. Solid sodium hydrogen carbonate (sodium bicarbonate) is strongly heated.
22. An excess of hydrochloric acid is added to solid zinc sulfide.
23. Acidified solutions of potassium permanganate and iron (II) nitrate are mixed together.
24. A solution of potassium hydroxide is added to solid ammonium chloride.