

Chemistry
Unit #7—Reactions

Homework Part Two

Word Equations

- A. Substitute symbols and formulas for names.
- B. Write the state of matter for each compound or element in the reaction.
- C. Balance the reaction.
- D. Identify the type of reaction.

1. Solid aluminum metal reacts with aqueous zinc chloride to produce solid zinc metal and aqueous aluminum chloride.

2. Solid iron and solid sulfur produce iron (II) sulfide in a solid form.

3. When solid potassium nitrate is heated, it forms solid potassium nitrite and oxygen gas.

4. Aqueous lead (II) nitrate and aqueous sodium iodide react to produce solid lead (II) iodide and aqueous sodium nitrate.

5. Propane, C_3H_8 , burns in oxygen gas (air) to form gaseous carbon dioxide and water vapor.

6. Liquid methane, CH_4 , reacts with oxygen gas to form gaseous carbon dioxide and gaseous water.

7. Solid elemental zinc reacts with solid aluminum oxide to form solid zinc oxide and solid elemental aluminum.

8. Solid calcium chloride is produced by mixing solid elemental calcium with chlorine gas.

9. Aqueous lead (II) nitrate reacts with a solution of lithium fluoride to a solution of lithium nitrate and solid lead (II) fluoride.

10. Solid sodium oxide broke down to produce solid elemental sodium and oxygen gas.

11. A solution of hydrochloric acid and a solution of titanium (IV) hydroxide neutralize to form titanium (IV) chloride and water.

12. When dissolved beryllium chloride reacts with dissolved silver nitrate in water, aqueous beryllium nitrate and silver chloride powder are made.

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13. When isopropanol (C_3H_8O) burns in oxygen, carbon dioxide and water are produced for the reaction.
14. When dissolved sodium hydroxide reacts with sulfuric acid (H_2SO_4), aqueous sodium sulfate, water, and heat are formed.
15. When fluorine gas is put into contact with calcium metal at high temperatures, calcium fluoride powder is created in an exothermic reaction.