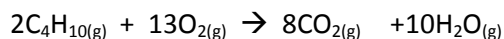


COMBUSTION SYNTHESIS AND DECOMPOSITION REACTIONS

Write the balanced chemical equation for each of the following reactions. Be sure to include states of matter:

1. Butane (C_4H_{10}) gas burns in the presence of oxygen gas. Write the balanced chemical equation.
2. Solid Calcium Carbonate breaks down into calcium oxide and carbon dioxide gas when heated. Write the balanced chemical equation.
3. Aluminum and Sulfur combine to form aluminum sulfide. Write the balanced chemical equation
4. Methanol gas (CH_3OH) is combusted. Write the balanced chemical equation.
5. Strongly heating solid potassium chlorate decomposes into potassium chloride and oxygen. Write the balanced chemical equation.
6. Solid Calcium oxide combines with water to form a solution of calcium hydroxide. Write the balanced chemical reaction.
7. diphosphorous pentoxide gas combines with water to form phosphoric acid solution. Write the balanced chemical reaction.

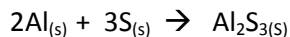
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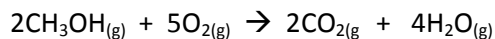
2. Solid Calcium Carbonate breaks down into calcium oxide and carbon dioxide gas when heated. Write the balanced chemical equation.



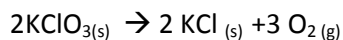
3. Aluminum and Sulfur combine to form aluminum sulfide. Write the balanced chemical equation



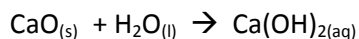
4. Methanol gas (CH₃OH) is combusted. Write the balanced chemical equation.



5. Strongly heating solid potassium chlorate decomposes into potassium chloride and oxygen. Write the balanced chemical equation.



6. Solid Calcium oxide combines with water to form a solution of calcium hydroxide. Write the balanced chemical reaction.



7. diphosphorous pentoxide gas combines with water to form phosphoric acid solution. Write the balanced chemical reaction.

