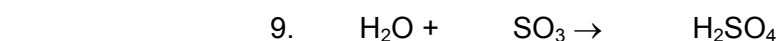
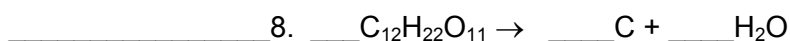
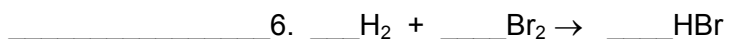
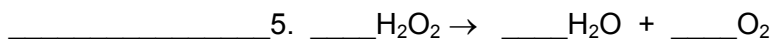


Chemistry

Synthesis and Decomposition Reactions

Balance each of the following equations. Identify them as synthesis or decomposition reactions.



Complete and balance each of these synthesis reactions:

(a) calcium + bromine

(b) magnesium + nitrogen

(c) beryllium + oxygen

(d) sulfur trioxide + water

Complete and balance these decomposition reactions. (In some cases one of the decomposition products is given.)

(a) $\text{Mg}(\text{ClO}_3)_2 \rightarrow \text{MgCl}_2 +$

(b) $\text{H}_2\text{O} \rightarrow$

(c) $\text{HBr} \rightarrow$

(d) $\text{HI} \rightarrow$

(e) $\text{HgO} \rightarrow$

(f) $\text{Fe}_2\text{O}_3 \rightarrow$

1. What is a distinguishing feature of every

(a) decomposition reaction?

(b) synthesis reaction?