

Write a balanced chemical equation describing each of the following chemical reactions.

- a. Solid calcium carbonate is heated and decomposes to solid calcium oxide and carbon dioxide gas.
- b. Gaseous butane, C_4H_{10} , reacts with diatomic oxygen gas to yield gaseous carbon dioxide and water vapor.
- c. Aqueous solutions of magnesium chloride and sodium hydroxide react to produce solid magnesium hydroxide and aqueous sodium chloride.
- d. Water vapor reacts with sodium metal to produce solid sodium hydroxide and hydrogen gas.

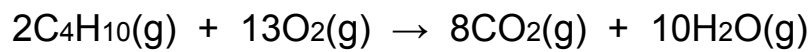
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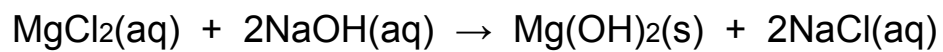
Answer a



Answer b



Answer c



Answer d

