

Tuesday Jan 10, 2012

Answers pg 232 #1, 3-5

Synthesis/Decomposition Reactions

Reminders:

Test Monday Jan 16!!!!

Warm-Up

1. Label each of the following as (C) complete or (INC) Incomplete Combustion

butane + oxygen \longrightarrow carbon dioxide + carbon monoxide + carbon + water vapour **INC**

$\text{CH}_4 + \text{O}_2 \longrightarrow \text{CO}_2 + 2\text{H}_2\text{O}$ **C**

2. Given the following word equation finish the reaction if not enough oxygen is present to complete the reaction:

methane + oxygen \longrightarrow carbon dioxide + carbon monoxide + carbon + water

Pg 232 #1, 3-5a Answers

1. Combustion is a chemical reaction in which a substance reacts rapidly with oxygen. This reaction produces oxides and releases heat and energy.

3. complete combustion :

propane + oxygen \longrightarrow carbon dioxide + water vapour
incomplete combustion :

propane + oxygen \longrightarrow carbon monoxide + carbon + carbon dioxide + water vapour

4. $\text{C}_3\text{H}_8 + \text{O}_2 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$

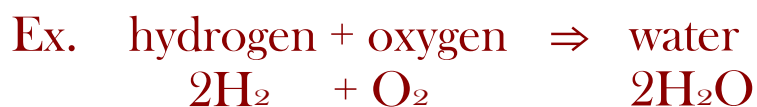
$\text{C}_3\text{H}_8 + \text{O}_2 \longrightarrow \text{CO} + \text{C} + \text{CO}_2 + \text{H}_2\text{O}$

5. a) complete combustion occurs where there is enough or an excess of oxygen gas and produces carbon dioxide and water vapour only. Incomplete combustion occurs when not enough oxygen is present and the products are carbon, carbon monoxide, carbon dioxide and water vapor.

Types of Chemical Reactions

II. Synthesis (Combination) Reactions

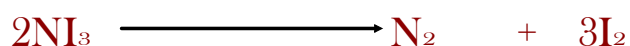
The reactions of smaller atoms/molecules into larger molecules (putting things together)



Types of Chemical Reactions

III. Decomposition Reactions

Decomposition reactions typically involve splitting a larger molecule into elements or smaller molecules (breaking things down).



Homework
p. 235 #1-4