

Ch 11 HW: Sec Asses 7,8,10 Rev Con 36,38,39
Sec 11.1
obj: Write Equations describing chemical rxns using appropriate symbols.

Chemical Reactions

- A chemical Rxn is a well defined chemical change.
- 3 Parts to a chemical rxn.
 - 1) Reactants - Substance that will undergo a chemical change
 - 2) Products - The new substance after the chemical change.
 - 3) Conditions - Specific conditions needed for the rxn.



11/19/02 7:56 AM

- Chemical Equation
 - A chemical Equation is used to show a chemical Rxn.
- 1) Word Equation
 - A sentence that describes a chemical rxn.
 - * Identifies the Reactants & Products
 - * Identifies the state of each substance
 - * Indicates any conditions needed for the rxn.

Nov 19 - 11:03 AM

Metallic Sodium will react w/ gaseous Chlorine and produces crystalline Sodium Chloride.

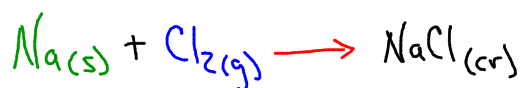
* Modified Word Equation

Solid Sodium + Gaseous Chlorine. \rightarrow Crystalline Sodium Chloride

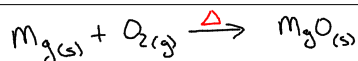
Hydrogen gas + Oxygen gas $\xrightarrow{\text{Flame}}$ Water Vapor

2) Skeleton Equation

- Represents the Reactants + Products w/ Chemical Symbols + Formulas + Uses abb. to show states.



Nov 19 - 11:07 AM



Symbols for Chemical Equations

+ \Rightarrow Used to separate reactants or products

\rightarrow \Rightarrow Yields \Rightarrow Used to separate Reactants from Products

\equiv \Rightarrow Alternative for Yields

\rightleftharpoons \Rightarrow Represents a reversible rxn.

(s) } states of matter
(l) }
(g) }

(cr) \rightarrow crystalline solid.

(aq) \rightarrow Dissolved in water (aqueous solution)

\uparrow \rightarrow Gaseous Product

\downarrow \rightarrow Product is a Precipitate.

Δ \rightarrow or Heat \Rightarrow Needs Heat

$\overline{\overline{\overline{\quad}}}$ \Rightarrow Needs an electric current

$\overline{\overline{\overline{\quad}}}$ \rightarrow or $\overline{\overline{\overline{\quad}}}$ \Rightarrow Using a catalyst.

Nov 19 - 11:16 AM

- Skeleton equations do not tell us the amount of reactants needed or the amount of products produced.
- Only balanced equations show the amount of each substance in the rxn.

Nov 13 - 8:49 AM