

## Reaction Practice #1

Write the balanced chemical equation with state signifiers for the following reaction:

Calcium hydroxide (aq) reacts with phosphoric acid (aq).



## Reaction Practice #2

Write the balanced chemical equation with state signifiers for the following reaction:

Barium chloride and sodium sulfate react.



not redox

## Reaction Practice #3

Write the balanced chemical equation with state signifiers for the following reaction:

Hydrochloric acid is dripped onto solid calcium carbonate.



(Double Replacement)

red flag

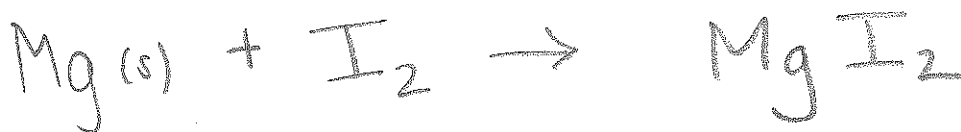


## Reaction Practice #4

Write the balanced chemical equation for the following reaction:

Solid magnesium reacts with iodine vapor.

(Synthesis)

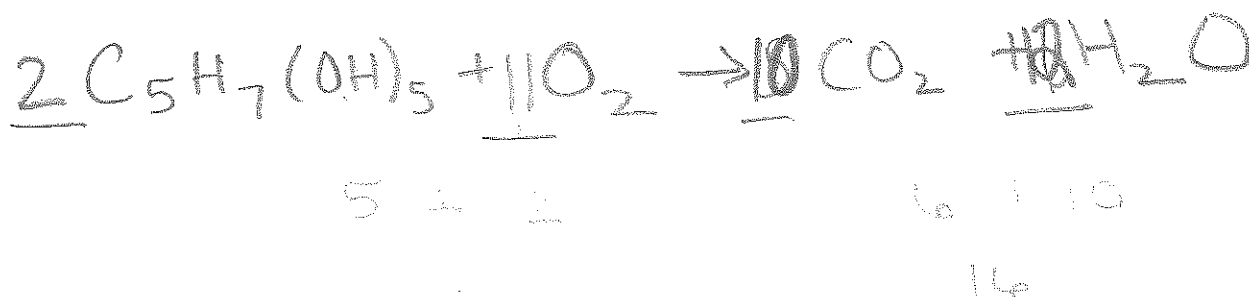


## Reaction Practice #5

Xylitol is a sugar alcohol used in chewing gum. Its chemical formula is  $C_5H_7(OH)_5$ .

Combustion

Write the balanced chemical equation for the combustion of xylitol.



yes redox

## Reaction Practice #6

Examine the following chemical equations. There are mistakes in the chemical formulas. Correct the mistakes and balance the equations.

- A)  $Zn + HCl \rightarrow ZnCl + H$        $Zn + \underline{2}HCl \rightarrow ZnCl_2 + H_2$
- B)  $CaSO_4 + AlBr_3 \rightarrow CaBr_3 + AlSO_4$        $\underline{3}CaSO_4 + \underline{2}AlBr_3 \rightarrow \underline{3}CaBr_2 + \underline{2}Al_2(SO_4)_3$
- C)  $KPO_4 + HCl_2 \rightarrow KCl_2 + HPO_4$
- $\underline{K}_3PO_4 + \underline{3}HClO \rightarrow \underline{3}KClO + H_3PO_4$

## Reaction Practice #7

Write the balanced chemical equation for the following reaction:

Chromium(III) perchlorate is heated over a flame. *Decomp*



## Reaction Practice #8

Write the balanced chemical equation for the following reaction:

Cobalt(IV) carbonate is heated over a flame. *Decomp*



## Reaction Practice #9

Write the balanced chemical equation for the following reaction:

Bismuth (V) hydroxide is heated over a flame. *Decomp*



## Reaction Practice #10

Write the balanced chemical equation for the following reaction:

Nickel(II) oxide reacts with water.

*synthesis*



## Reaction Practice #11

Write the balanced chemical equation for the following reaction:

Nickel(I) oxide and carbon dioxide react.

Synthesis

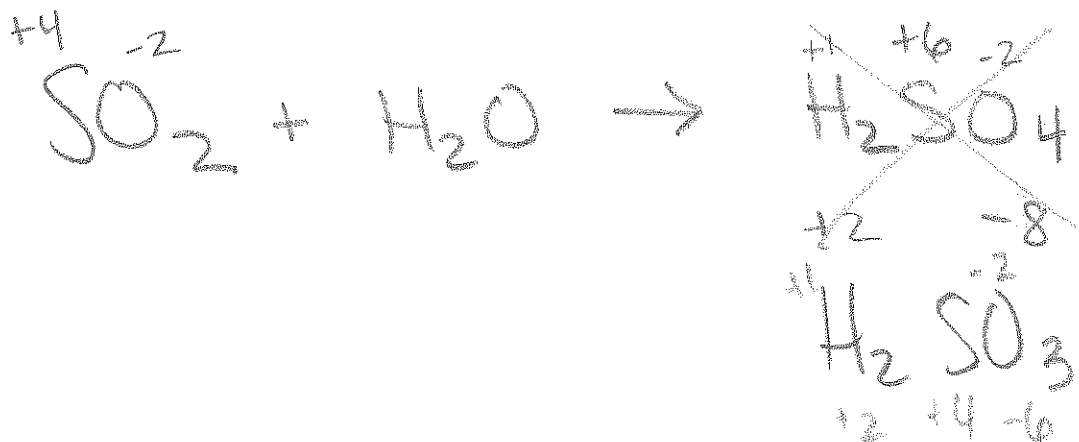


## Reaction Practice #12

Write the balanced chemical equation for the following reaction:

Sulfur dioxide is bubbled into water.

Synthesis



## Reaction Practice #13

Write the balanced chemical equation for the following reaction:

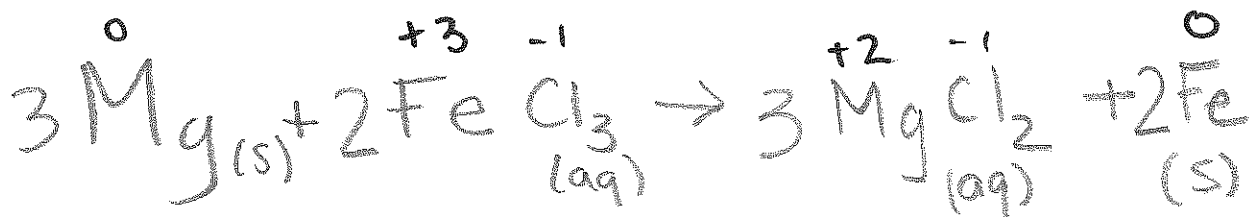
Zinc sulfide is electrolyzed.  $\rightarrow$  *decomp*



## Reaction Practice #14

Write the balanced chemical equation with state signifiers for the following reaction:

Solid magnesium is placed in an iron(III) chloride solution.

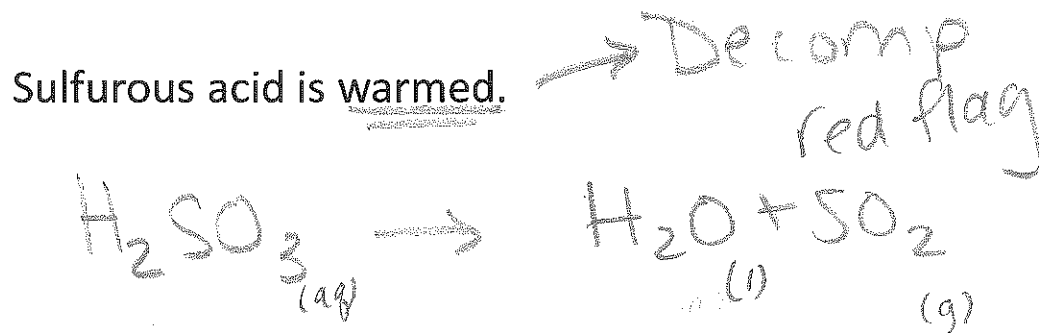


Mg is oxidized

Fe is reduced

## Reaction Practice #15

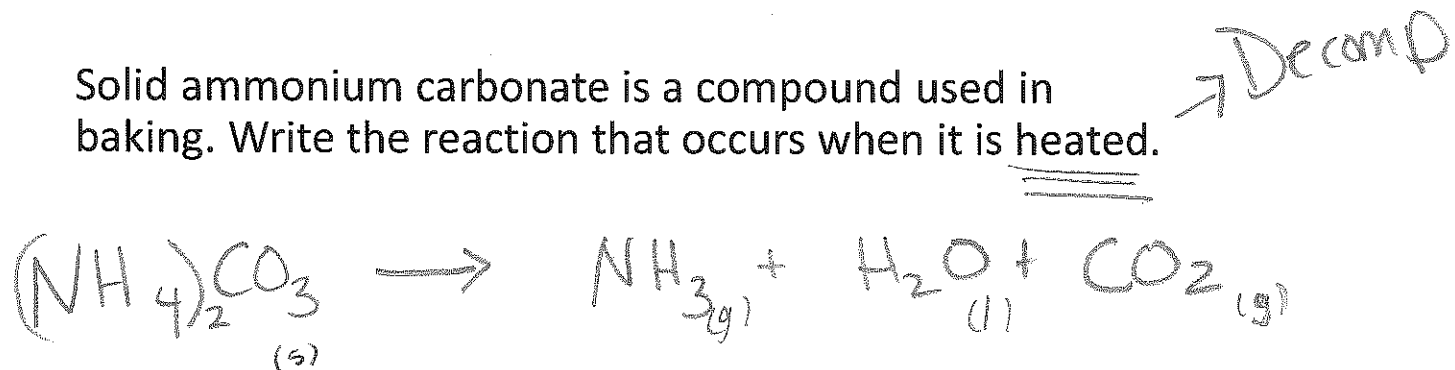
Write the balanced chemical equation with state signifiers for the following reaction:



## Reaction Practice #16

Write the balanced chemical equation with state signifiers for the following reaction:

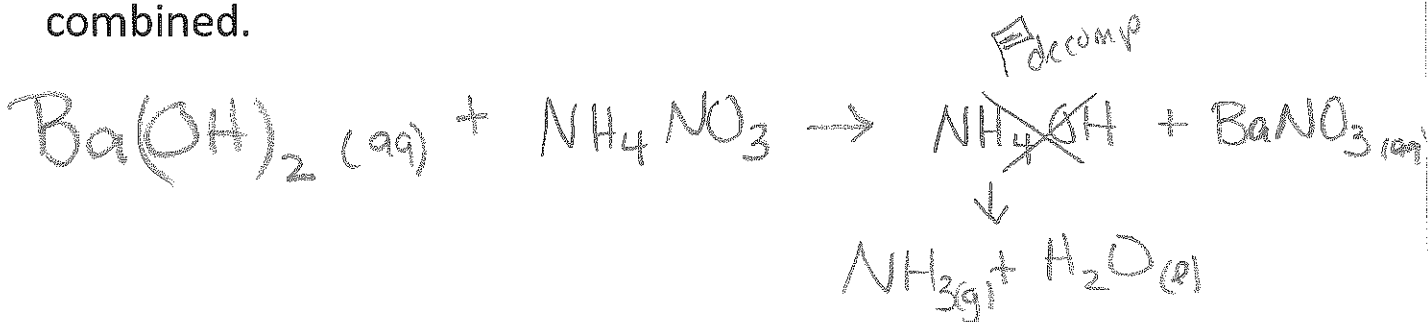
Solid ammonium carbonate is a compound used in baking. Write the reaction that occurs when it is heated.



## Reaction Practice #17

Write the balanced chemical equation with state signifiers for the following reaction:

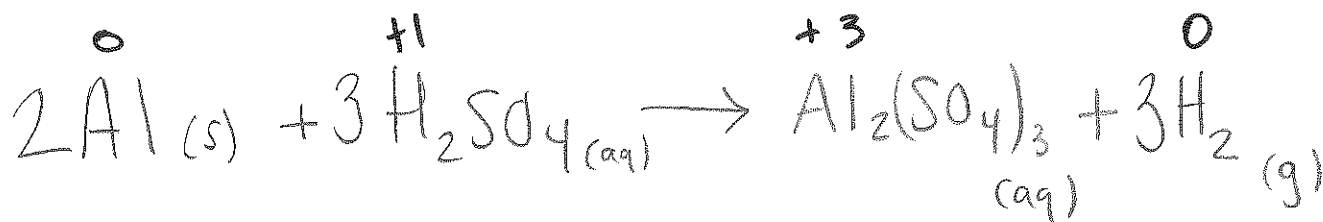
Aqueous barium hydroxide and ammonium nitrate are combined.



## Reaction Practice #18

Write the balanced chemical equation with state signifiers for the following reaction:

Solid aluminum is submerged in a sulfuric acid solution.



Al is oxidized

H is reduced

## Reaction Practice #19

Identify the type of reaction and use the appropriate reference material to determine whether each will occur.

- a)  $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$  Single Replacement, will occur
- b)  $\text{Cu} + \text{Zn}(\text{NO}_3)_2 \rightarrow \text{Cu}(\text{NO}_3)_2 + \text{Zn}$  S.R. NO rxn
- c)  $\text{Mg}(\text{NO}_3)_2 + \text{K}_3\text{PO}_4 \rightarrow \text{Mg}_3(\text{PO}_4)_2 + \text{KNO}_3$  D.R. will occur  
(s) (aq)
- d)  $\text{NaCl} + \text{F}_2 \rightarrow \text{NaF} + \text{Cl}_2$  S.R. yes will occur.

## Reaction Practice #20

Deoxyribose is the sugar in DNA, deoxyribonucleic acid.  
Its chemical formula is  $\text{C}_5\text{H}_{10}\text{O}_4$ .

Write the balanced chemical equation for the combustion of deoxyribose.

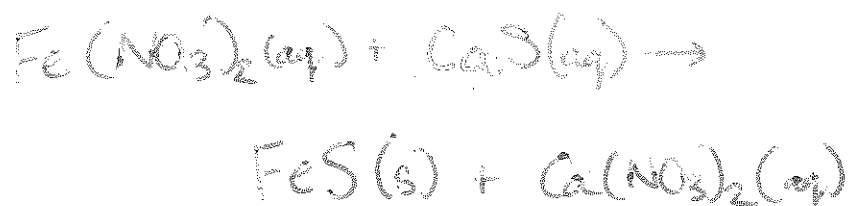
Combustion



## Reaction Practice #21

- Write the balanced chemical equation with state signifiers for the following reaction:

A solution of iron(II) nitrate is added to a solution of ~~nickel~~ calcium sulfide.



## Reaction Practice #22

- Write the balanced chemical equation with state signifiers for the following reaction:

Chlorine gas is bubbled into a solution containing cadmium bromide.



### Reaction Practice #23

- Write the balanced chemical equation with state signifiers for the following reaction:

A solution of copper(II) perchlorate has gold nuggets added to it.



Cu is more reactive than Au

### Reaction Practice #24

- Write the balanced chemical equation with state signifiers for the following reaction:

A solution of chlorous acid is poured on top of a piece of barium.



## Reaction Practice #25

- Write the balanced chemical equation with state signifiers for the following reaction:

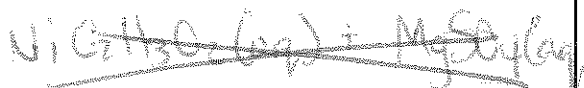
Calcium is added to a container filled with water vapor.



## Reaction Practice #26

- Write the balanced chemical equation with state signifiers for the following reaction:

Solutions of magnesium acetate and nickel(II) sulfate are mixed in a well plate.



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