

## Practice Predicting Products of Reactions

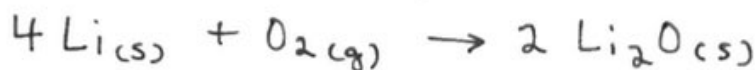
KEY

- Directions:**
- Write the formulas for the following reactants.
  - Predict the products and write formulas for them.
  - Balance the equation.
  - Classify the reaction as synthesis, decomposition, single displacement, double displacement/neutralization, double displacement/precipitation, or combustion.

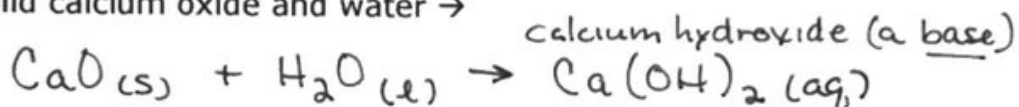
**NOTE:** to **burn** means to add oxygen ( $O_2$ ) and this is **NOT** the same as heating. Do not forget about the diatomic elements (**BrINCIOHF**).

C/S

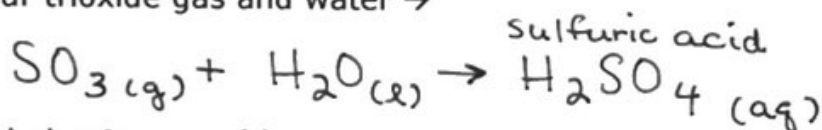
1. The burning (or combustion) of solid lithium  $\rightarrow$



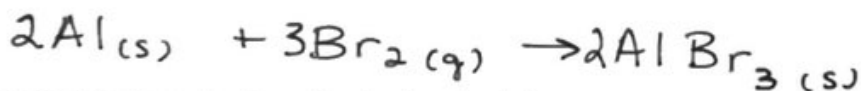
- S 2. Solid calcium oxide and water  $\rightarrow$



- S 3. Sulfur trioxide gas and water  $\rightarrow$



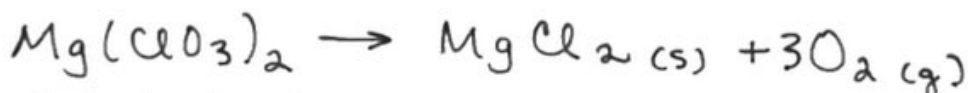
- S 4. Solid aluminum and bromine gas  $\rightarrow$



- D 5. Solid barium hydroxide is heated  $\rightarrow$



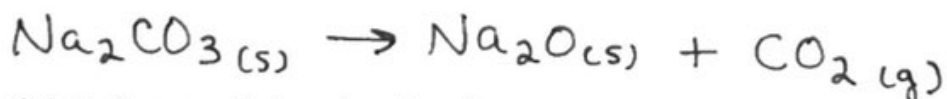
- D 6. Solid magnesium chlorate is heated  $\rightarrow$



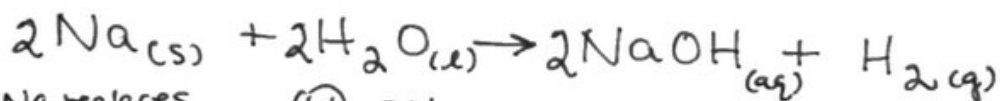
- D 7. Electrolysis of molten aluminum oxide  $\rightarrow$



- D 8. Solid sodium carbonate is heated  $\rightarrow$



- SR 9. Solid sodium metal and water  $\rightarrow$



Na replaces one H in  $H_2O \rightarrow \text{H-OH}$

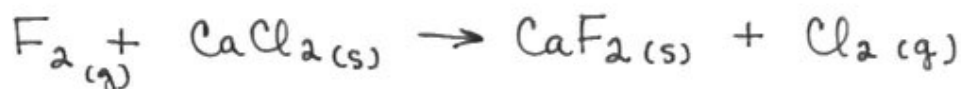
SR 10. Iron(II) filings are added to aqueous copper(II) sulfate →



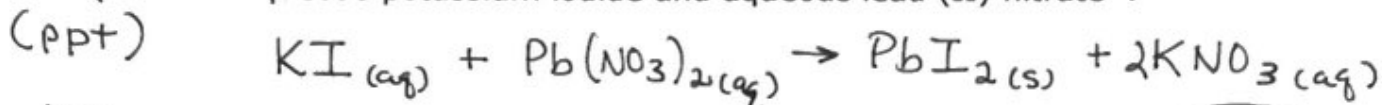
SR 11. Solid potassium metal and hydrochloric acid →



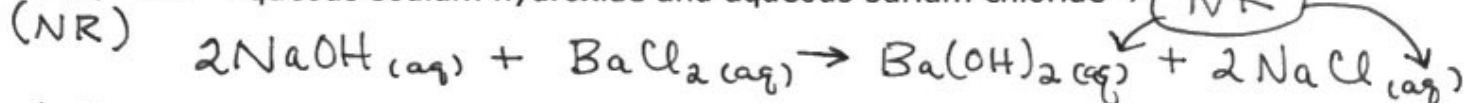
SR 12. Fluorine gas and solid calcium chloride →



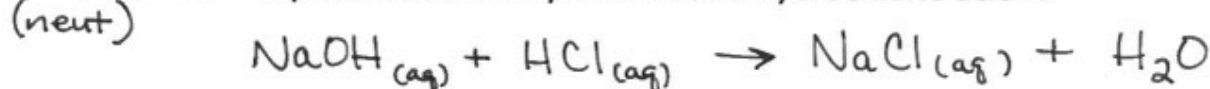
DR 13. Aqueous potassium iodide and aqueous lead (II) nitrate →



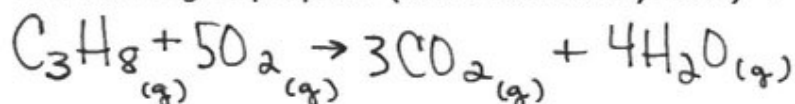
DR 14. Aqueous sodium hydroxide and aqueous barium chloride →



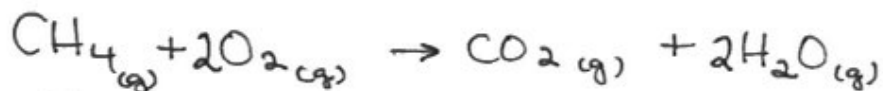
DR 15. Aqueous sodium hydroxide and hydrochloric acid →



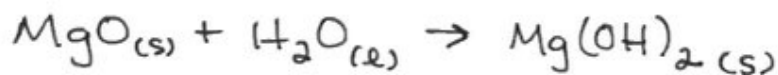
C 16. The burning of propane (tricarbon octahydride) →



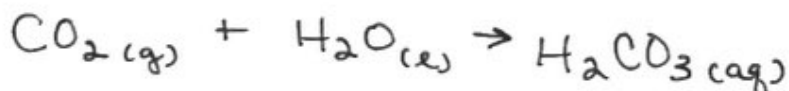
C 17. The burning of methane (carbon tetrahydride) →



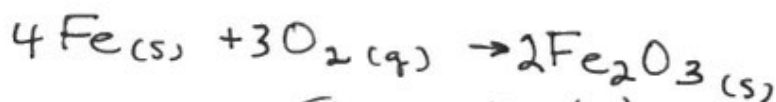
S 18. Solid magnesium oxide and water →



S 19. Carbon dioxide gas and water →



S 20. Solid iron and oxygen gas →



(or)

Iron(III) oxide

