

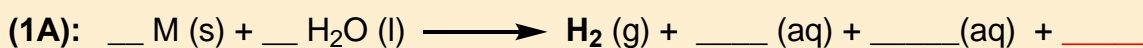
## CONCEPT: GROUP 1A AND 2A REACTIONS

- Alkali metals (1A) and Alkaline Earth metals (2A) undergo numerous reactions.
  - 2 types of reactions: with (1) \_\_\_\_\_ and (2) \_\_\_\_\_.

### (1) Reaction with H<sub>2</sub>O

- Both groups react violently with \_\_\_\_\_ and have high exothermic \_\_\_\_\_.
  - **Recall:** when metals react with an acidic proton, \_\_\_\_\_ gas is formed.

#### Reaction with H<sub>2</sub>O



M = 1A or 2A metal

**EXAMPLE:** Complete and balance the following reaction.



**PRACTICE:** Alkaline earth metals react with certain substances to produce hydrogen gas. Which of the following will result in hydrogen gas formation? Provide a balanced reaction.

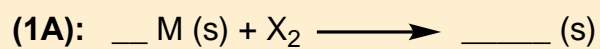
- Beryllium (Be) and O<sub>2</sub>
- Barium (Ba) and CO<sub>2</sub>
- Calcium (Ca) and H<sub>2</sub>O
- Strontium (Sr) and O<sub>2</sub>

## CONCEPT: GROUP 1A AND 2A REACTIONS

### (2) Reaction with Halogens

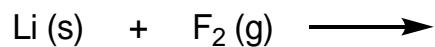
- Both groups react with halogens to produce \_\_\_\_\_ halides.

#### Reaction with Halogens



M = 1A or 2A metal

**EXAMPLE:** Complete and balance the following reaction.



**PRACTICE:** Provide the products from the reaction between strontium and aqueous chlorine.