**Gas Volume Stoichiometry**

(1) **Purpose**:

1 To test gas volume stoichiometry by trapping/measuring gas in a cylinder.

(2) **Experimental Design**:

1 *manipulated variable* - amount of magnesium ribbon

1 *responding variable* - amount of hydrogen gas collected

(4) **Observations**:

1 Length of magnesium ribbon

2 Mass of magnesium ribbon calculation

1 Volume of gas collected.

**Conclusion**

(5) Analysis

2 Mg (s) + 2 HCl (aq) ----> MgCl2 (aq) + H2 (g)

3 calculation of theoretical volume

0.060 g magnesium ----> 61 mL of hydrogen gas

(2) Evaluation

2 Percent error calculation

(4) **Questions**

1. Assumed SATP conditions. (1)

2. 61 mL = 0.0050 g (2)

3. Pop indicates the presence of hydrogen gas. (1)

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