

Name _____

DATE _____

% yield.

$$1. \% \text{ yield} = \left(\frac{\text{Actual yield}}{\text{Theoretical yield}} \times 100\% \right)$$

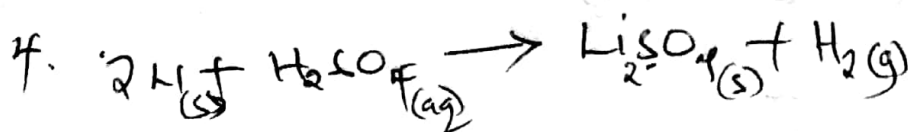
$$\left(\frac{32\text{g}}{34\text{g}} \times 100\% \right) = \underline{\underline{94.12\%}}$$

$$2. \% \text{ yield} = \left(\frac{\text{Actual}}{\text{Theoretical}} \times 100\% \right)$$

$$\left(\frac{135\text{g}}{143\text{g}} \right) \times 100\% = 94.52\%$$

3. % yield of Lithium

$$\left(\frac{3.8\text{g}}{4.2} \times 100\% \right) = 90.48\%$$



$$\text{molar of Li} = \frac{34.8\text{g}}{6.94\text{g/mol}} = 5.014 \text{ molar of Li.}$$

$$\text{molar of Li}_2\text{SO}_4 = \frac{5.014 \text{ molar}}{2} = 2.506 \text{ molar.}$$

$$\text{mass of Li}_2\text{SO}_4 = (2.506 \text{ molar} \times 109.7\text{g/mol}) = \underline{\underline{275.60\text{g}}}$$

$$\% \text{ yield} = \left(\frac{270.5\text{g}}{275.6\text{g}} \times 100\% \right) = \underline{\underline{98.15\%}}$$