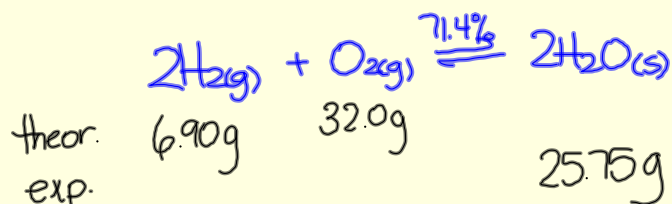


SAMPLE PROBLEM : % REACTION

Find the % reaction and write the expression if 6.90 g of $\text{H}_2(\text{g})$ and 32.0 g of $\text{O}_2(\text{g})$ react to form 25.75 g of ice at -70°C .



Find max. product

IF H_2 is L.R.

$$6.90\text{g H}_2 \times \frac{1 \text{ mol H}_2}{2.02\text{g H}_2} \times \frac{2 \text{ mol H}_2\text{O}}{2 \text{ mol H}_2} \times \frac{18.02\text{g H}_2\text{O}}{1 \text{ mol H}_2\text{O}} = 61.55\text{g H}_2\text{O}$$

IF O_2 is L.R.

$$32.0\text{g O}_2 \times \frac{1 \text{ mol O}_2}{32.00\text{g O}_2} \times \frac{2 \text{ mol H}_2\text{O}}{1 \text{ mol O}_2} \times \frac{18.02\text{g H}_2\text{O}}{1 \text{ mol H}_2\text{O}} = 36.04\text{g H}_2\text{O}$$

$\therefore \text{O}_2$ is L.R.

$$\% \text{rxn} = \frac{\text{exp.}}{\text{theor.}} \times 100\%$$

$$\% \text{rxn} = \frac{25.75\text{g}}{36.04\text{g}} \times 100\%$$

$$\% \text{rxn} = 71.4\%$$

Percent Reaction Worksheet