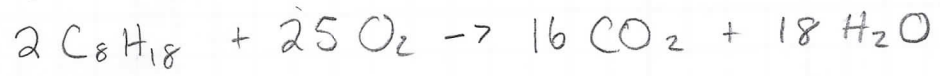


Exp. No.	Experiment/Subject	Date
Name	Lab Partner	Locker/Desk No.
		Course & Section No.

$$\text{Percent Yield} = \frac{\text{Actual}}{\text{Theoretical}} \times 100\%$$



Actual = 28.16 g CO₂

4 mol C₈H₁₈ w/ 8 mol O₂

If 2 mol C₈H₁₈ takes 25 mol O₂,
 then for 4 mol C₈H₁₈ should take 50 mol O₂
 (calculated by $4 \text{ mol C}_8\text{H}_{18} \times \frac{25 \text{ mol O}_2}{2 \text{ mol C}_8\text{H}_{18}} = 50 \text{ mol O}_2$)

This makes O₂ the limiting reactant

~~How many grams of CO₂ do we get from the base equation.~~ useless

1 mol CO₂ = (12 + (16 · 2))
 = 44 g CO₂ → pulled from periodic table

~~16 mol CO₂ × 44 g CO₂ = 704 g CO₂~~

important!

$$8 \text{ mol O}_2 \times \frac{16 \text{ mol CO}_2}{25 \text{ mol O}_2} = 5.12 \text{ mol CO}_2$$

$$5.12 \text{ mol CO}_2 \times \frac{44 \text{ g CO}_2}{1 \text{ mol CO}_2} = 225.28 \text{ g CO}_2$$

← This is the theoretical

$$\text{Percent Yield} = \frac{28.16 \text{ g CO}_2}{225.28 \text{ g CO}_2} = 0.125 \times 100 = 12.5\%$$

make it a percent

Signature	Date	Witness/TA	Date
-----------	------	------------	------