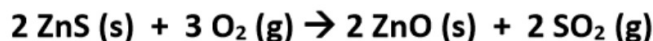


$$\text{Percent Yield} = \frac{\text{experimental yield}}{\text{theoretical yield}} \times 100$$

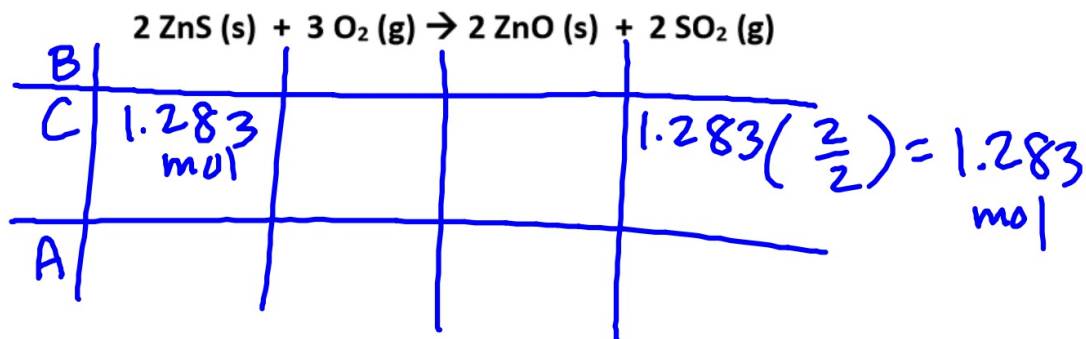
Experimental yield = lab results

Theoretical yield = stoichiometry (BCA) answer

Example) When 125.0 grams of ZnS ^{LR} react with excess O₂, according to the equation below, 76.4 grams of SO₂ are formed in lab. What is the percent yield of SO₂?



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$$\frac{125 \text{ g ZnS}}{97.46 \text{ g ZnS}} \times 1 \text{ mol ZnS} = 1.283 \text{ mol ZnS}$$

$$\frac{1.283 \text{ mol SO}_2}{1 \text{ mol SO}_2} \times 64.07 \text{ g SO}_2 = 82.20 \text{ g SO}_2$$

theoretical

$$\% \text{ yield} = \frac{\text{experimental}}{\text{theoretical}} \times 100$$

$$\% \text{ yield} = \frac{76.4 \text{ g SO}_2}{82.20 \text{ g SO}_2} \times 100$$

$$\% \text{ yield} = \boxed{92.9 \%}$$