

COMBUSTION OF C, H, N

CH1010-117-A03

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0.1156g of NIT. COMPOUND

$$\rightarrow 0.1676 \text{ g of } H_2O \times \frac{1 \text{ mol of } H_2O}{2 \times 1.0079 \text{ g} + 15.9994 \text{ g}} \times \frac{2 \text{ mol of H in compound}}{1 \text{ mol of H in } H_2O} = 0.01361 \text{ mol of H}$$

$$\rightarrow 0.1638 \text{ g of } CO_2 \times \frac{1 \text{ mol of } CO_2}{12.011 \text{ g} + 2 \times 15.9994 \text{ g}} \times \frac{1 \text{ mol of C in compound}}{1 \text{ mol of } CO_2} = 0.00372 \text{ mol of C}$$

\rightarrow NITROGEN COMPRISES THE DIFFERENCE

$$0.1156 \text{ g of TOTAL} - \left(0.00372 \text{ mol C} \times \frac{12.011 \text{ g C}}{\text{mol C}} \right) - \left(0.01361 \text{ mol} \times \frac{1.0079 \text{ g}}{\text{mol H}} \right)$$

$$0.05217 \text{ g of N} \times \frac{1 \text{ mol N}}{14.007 \text{ g N}} = 0.00372 \text{ mol of N}$$