PERCENTAGE COMPOSITION

Percentage composition compares the mass of one part of a substance to the mass of the whole.

Calculating percentage composition:

- Do a formula/molecular mass calculation.
- Divide the total atomic mass for each element by the total formula mass of the compound.

**Example:** Calculate the percentage composition of C₂H₅OH

\[
\begin{align*}
C &= \frac{(2 \times 12.01)}{46.08} \times 100 = \\
H &= \frac{(6 \times 1.01)}{46.08} \times 100 = \\
O &= \frac{(1 \times 16.00)}{46.08} \times 100 =
\end{align*}
\]

**Homework:**
Calculate the percentage composition of:

1. CaO
2. H₂S
3. CuS
4. CaSO₄
5. NH₄NO₃
6. HMnO₄
7. Ca(HCO₃)₂
8. BaO₂
9. H₂SO₄
10. Al₂(CO₃)₃
11. HNO₃
12. Na₂CO₃
13. C₆H₈N₂O₂S
14. C₆H₁₂O₆
15. CH₃OH