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

$$C = [(2 \times 12.01) / 46.08] \times 100 =$$

$$H = [(6 \times 1.01) / 46.08] \times 100 =$$

$$O = [(1 \times 16.00) / 46.08] \times 100 =$$

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. $Al_2(CO_3)_3$
- 11. HNO₃
- 12. Na₂CO₃
- 13. $C_6H_8N_2O_2S$
- 14. $C_6H_{12}O_6$
- 15. CH₃OH