Chapter 3 – Mass Relationships

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September 8, 2020

- Molar Mass
  1. $6.022 \cdot 10^2 3$ is one mole (Avogadro's number)
  2. Obtained by adding the atomic mass of each element present
  3. ex. C = 12[g]/mol
- Molarity (M)
  1. mol/L
- Molar Ratio
  1. Use $C_1 2 H_2 2 O_1 1$ for example:
  2. Ratio for Carbon: $\frac{12\text{mol}_C}{\text{mol}_{C_{12}H_{22}O_{11}}}$
  3. Ratio for Hydrogen: $\frac{22\text{mol}_H}{\text{mol}_{C_{12}H_{22}O_{11}}}$
  4. Ratio for Oxygen: $\frac{11\text{mol}_C}{\text{mol}_{C_{12}H_{22}O_{11}}}$
- Mass Percent
  1. Mass of Element per Mass of Compound times 100 ($\frac{m_e}{m_c} \cdot 100$)