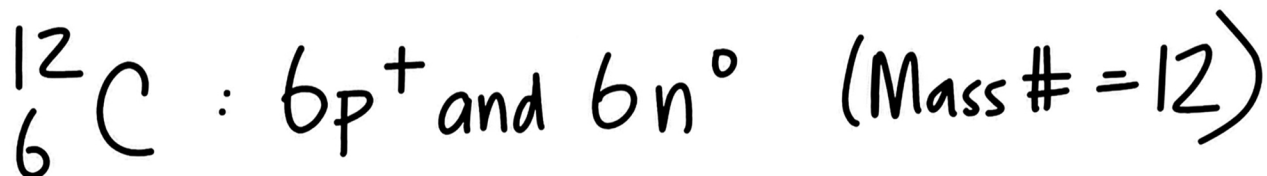


Noteset 5A (Part 2) - In Class Noteset

Atomic Mass Unit and Mass of an Isotope

Comparing atomic mass (amu and g)



Atomic Mass (amu)

$${}^{12}_6\text{C}_{\text{mass}} = \underline{12 \text{ amu}}$$

$${}^{13}_6\text{C}_{\text{mass}} = \underline{13 \text{ amu}}$$

Atomic Mass (g)

$$1 \text{ amu} = 1.67 \times 10^{-24} \text{ g}$$

$${}^{12}_6\text{C}_{\text{mass}} = \underline{2.004 \times 10^{-23} \text{ g}}$$

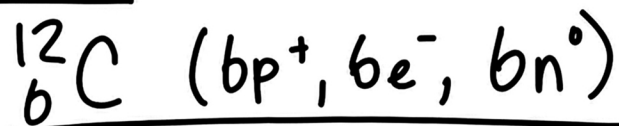
$${}^{13}_6\text{C}_{\text{mass}} = \underline{2.171 \times 10^{-23} \text{ g}}$$

Molar Mass and the electron

$$p^+_{\text{mass}} = 1.67 \times 10^{-24} \text{ g}$$

$$n^0_{\text{mass}} = 1.67 \times 10^{-24} \text{ g}$$

$$e^-_{\text{mass}} = 9.11 \times 10^{-28} \text{ g}$$



With electrons	$6 \cdot 1.67 \times 10^{-24} \text{ g}$	$2.0043 \times 10^{-24} \text{ g}$
	$6 \cdot 1.67 \times 10^{-24} \text{ g}$	
	$6 \cdot 9.11 \times 10^{-28} \text{ g}$	

Without electrons	$6 \cdot 1.67 \times 10^{-24} \text{ g}$	$= 2.004 \times 10^{-24} \text{ g}$
	$6 \cdot 1.67 \times 10^{-24} \text{ g}$	

e^- only add mass at $\pm 0.0003 \text{ g}$