

Average Atomic Mass Practice Problems - 2

3. Hydrogen is 99% ^1H , 0.8% ^2H , and 0.2% ^3H . Calculate its average atomic mass.

Calculate the % Abundance

This is already completed in the problem for you.

Convert % Abundance to Decimals

$\rightarrow$ $\rightarrow$ $\rightarrow$

Use the Equation to Calculate Average Atomic Mass

$$(\text{ } \times \text{ }) + (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ }$$

4. Calculate the average atomic mass of magnesium using the following data for three magnesium isotopes.

Isotope mass (u) relative abundance

Mg-24 abundance is 0.7870

Mg-25 abundance is 0.1013

Mg-26 abundance is 0.1117

Calculate the % Abundance

This is already completed in the problem for you.

Convert % Abundance to Decimals

This is already completed in the problem for you.

Use the Equation to Calculate Average Atomic Mass

$$(\text{ } \times \text{ }) + (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ }$$

5. Calculate the average atomic mass of chromium. (not in percents)

<u>Isotope</u>	<u>Mass (amu)</u>	<u>Relative Abundance</u>
Chromium – 50	49.946	0.043500
Chromium – 52	51.941	0.83800
Chromium – 53	52.941	0.095000
Chromium – 54	53.939	0.023500

Calculate the % Abundance

This is already completed in the problem for you.

Convert % Abundance to Decimals

This is already completed in the problem for you.

Use the Equation to Calculate Average Atomic Mass

$$(\text{ } \times \text{ }) + (\text{ } \times \text{ }) + (\text{ } \times \text{ }) + (\text{ } \times \text{ }) = \text{ }$$