

Isotope Review

Isotopes can be defined as:

Represent the isotope carbon-12 in proper isotopic notation:

What is the role of the neutron?

What are radioisotopes?

What is meant by average atomic mass?

What unit represents average atomic mass?

Which of the following group of atoms are isotopes of the same element?

a) ${}^5_3\text{X}$ b) ${}^8_4\text{X}$ c) ${}^{11}_5\text{X}$ d) ${}^{12}_6\text{X}$ e) ${}^{13}_5\text{X}$ f) ${}^7_3\text{X}$ g) ${}^{13}_6\text{X}$

The element X consists of 3 main isotopes: 95.02% X-32 (31.97 amu), 0.75 % X-33 (32.97 amu) and 4.21% X-34 (33.97 amu). Calculate the average atomic mass of element X.

The element thallium consists of 29.50% Tl-203 (203.0 amu) and 70.50% Tl-205 (205.0 amu). What is the atomic mass of thallium?