

lithium has two naturally occurring isotopes lithium 6 and lithium 7. if

the average atomic mass of lithium is 6.941 amu which isotope is the most abundant how do you know

The average atomic mass of whatever element calculates as sum of isotopes mass multiplied by percentage of abundance on the Earth.

For instance, Li has Li^7 and Li^6 . If abundance of Li^7 is (x), then Li^6 abundance is (1-x). So, the average atomic mass of lithium is:

$$7x + 6(1-x) = 6.941.$$

Let's calculate abundance of both isotopes:

$$7x + 6 - 6x = 6.941$$

$$1x = 0.941$$

$$\text{Li}^6 = 5.9\%$$

$$\text{Li}^7 = 94.1\%$$

Li^7 is most abundant.