

Relative Atomic Mass

1. A sample of element X consists of 93.2% of ^{39}X and 6.8% of ^{41}X . What is the relative atomic mass of X?
2. The atomic mass of element X is 114.8. X has two isotopes, ^{113}X and ^aX , and the relative abundance of ^{113}X is 10.0%. What is the value of a?

Suggested Answer

$$\begin{aligned} 1. \quad \text{R.A.M.} &= 39 \times 93.2\% + 41 \times 6.8\% \\ &= 39.1 \end{aligned}$$

$$\begin{aligned} 2. \quad 114.8 &= 113 \times 10.0\% + a \times 90.0\% \\ a &= 115 \end{aligned}$$