

CONCEPT: ALPHA DECAY

Alpha (α) Decay occurs when an unstable nucleus emits a particle composed of _____ protons and _____ neutrons.

An alpha particle can be represented by _____ or _____.

In terms of the size of radioactive particles, alpha particles are the _____.

- It is the most damaging to biological cells because it has the _____ ionizing power.
- Has the _____ penetrating power and can be stopped by clothing and the air of our environment.

EXAMPLE: Write balanced nuclear equations for each of the following alpha emissions.

a) Curium (Cm) – 248

b) Bismuth (Bi) – 207