CONCEPT: POSITRON EMISSION

Positron Emission occurs when an unstable nucleus emits a positron. The positron is the antiparticle of the electron, with the same mass as an electron, but with the opposite sign.

A positron particle can be represented by _____ and in the overall reaction a proton is converted into a neutron and emits a positron.

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

a. Uranium (U) – 235

b. Radon (Rn) – 222

EXAMPLE: A nuclide of Th – 225 undergoes 3 alpha decays, 4 beta decays and a gamma emission. What is the product?

a. Radium

b. Radon

c. Actinium

d. Cadmium

e. Antimony