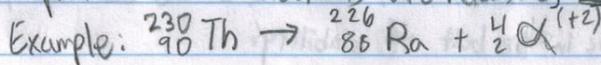


RADIOACTIVITY

Types of Decay

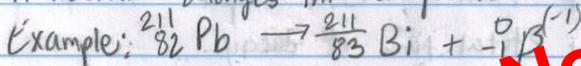
Alpha - ${}^4_2\alpha^{+2}$ (Helium-4 ion with a charge of +2) comes out of the atom which drops the atomic number (z) by 2 and the atomic mass (a) by 4.

2 protons and 2 neutrons are released, No Electrons.



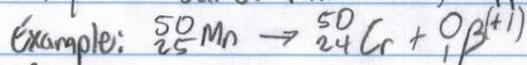
Beta - ${}^0_{-1}\beta^{-1}$ (high energy electron) comes out of the atom which raises the atomic number (z) by 1 and the atomic mass (a) stays the same.

A neutron changes into a proton.



Gamma - ${}^0_0\gamma$ (high energy photon) is released in rays. The atomic number (z) and the atomic mass (a) stay the same.

Positron emission - ${}^0_{+1}\beta^{+1}$ (high energy positive electron) comes out of the atom which drops the atomic number (z) by 1 and the atomic mass (a) stays the same. ("Antimatter", opposite of beta decay)



(Electron capture has same effect.)

Preview from Notesale.co.uk
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