

REFER TO TABLE (N)
NUCLEAR EQUATIONS

Aim: How do we write nuclear equations?

DECAY MODES:

ALPHA DECAY (α)

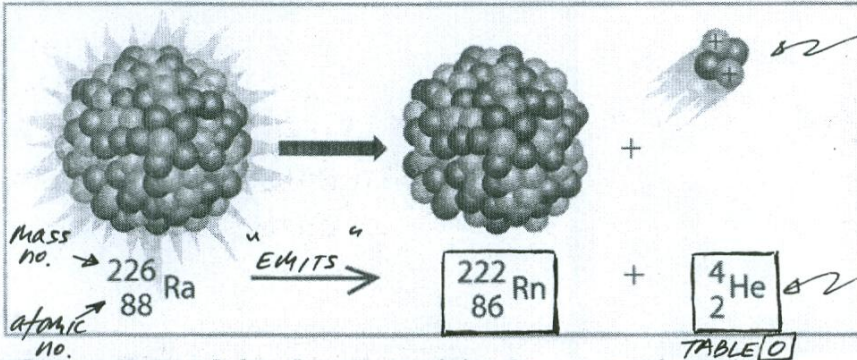


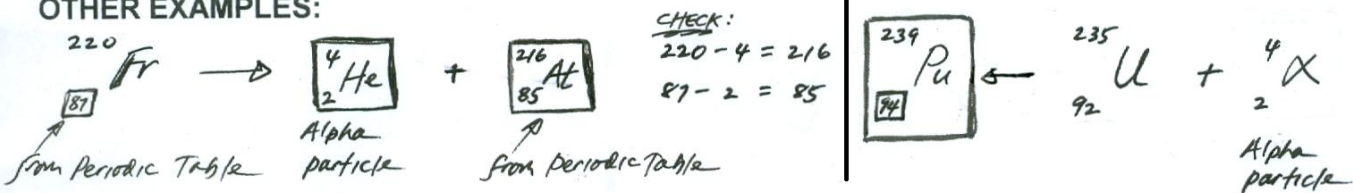
Figure 12-3. Alpha decay: In alpha decay, a nucleus ejects an alpha particle and becomes a smaller nucleus with less positive charge.

Natural Radioactivity *spontaneously, on its own*

Natural Transmutation

- one element converts into another as a result of a nuclear change

OTHER EXAMPLES:



REMEMBER: $\xrightarrow{\text{minus}}$
 $\xleftarrow{\hspace{1cm}}$

BETA DECAY (β^-)

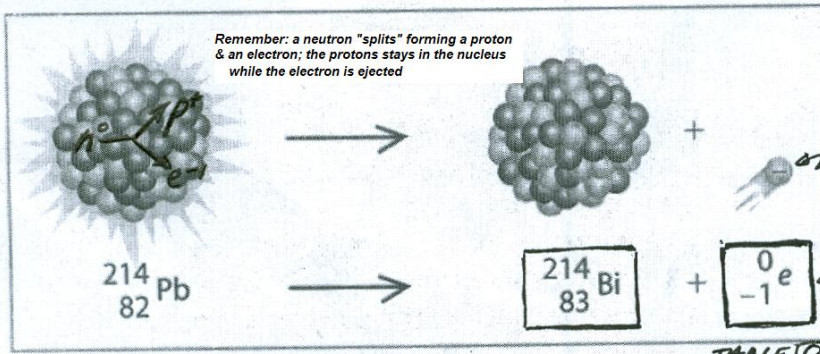
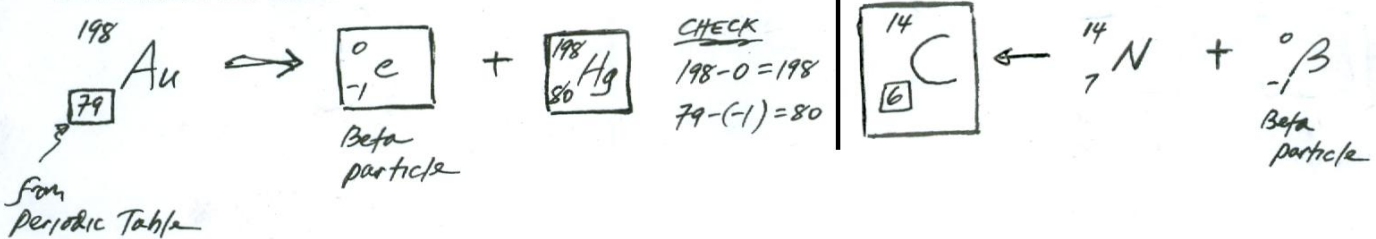


Figure 12-4. Beta decay: Beta decay has the effect of turning a neutron in the nucleus into a proton and an electron.

OTHER EXAMPLES:



POSITRON EMISSION (β^+)

