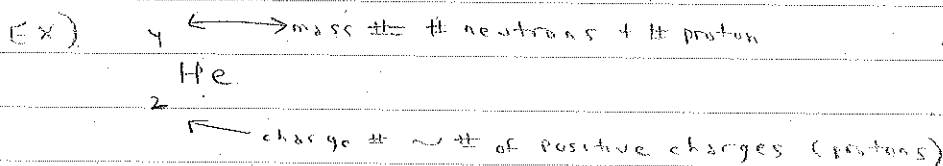


mass \rightarrow 235
 number 92 U
 \uparrow
 protons



Chemical change - atoms rearrange, no change in nuclei
 - all about electrons

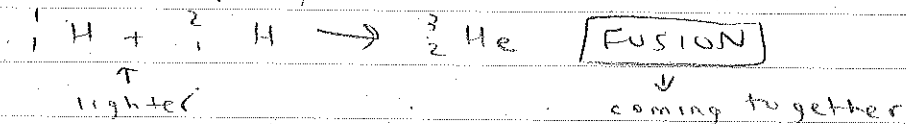
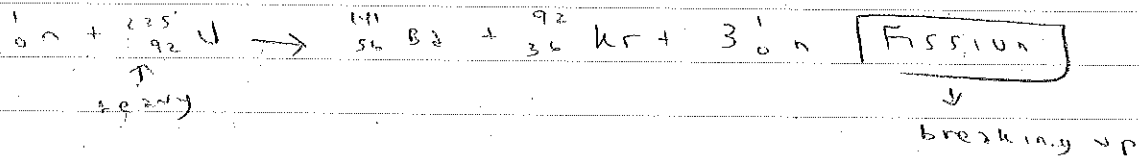
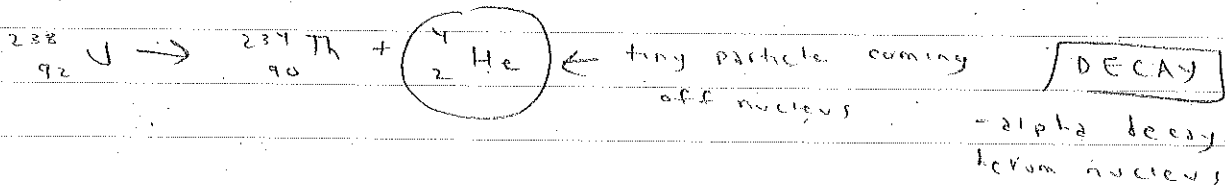
nuclear change - ignore electron cloud, focus on nuclei



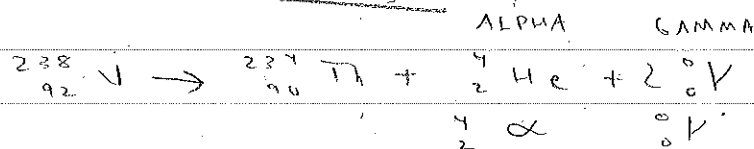
- if it has mass of 1, charge of 0, it is a neutron

Fusion - lighter to heavier "fusing"

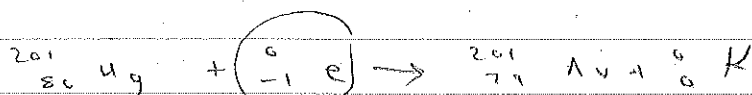
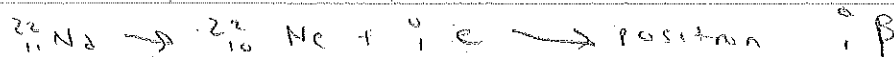
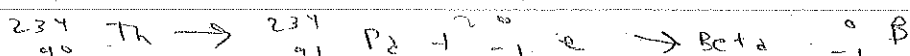
Fission - heavier to lighter "splitting"



Radioactive Decay



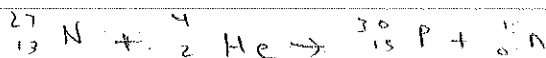
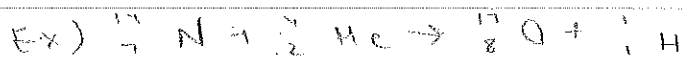
* gamma are left off balanced rxn b/c no charge, no mass



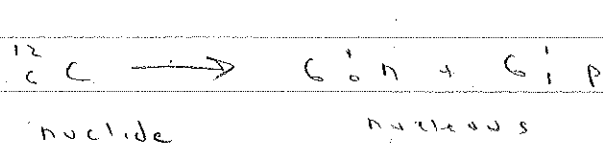
electron capture

turn neutron into proton

Transmutation - happen in lab



Binding Energy



Binding E
of C-12



energy in

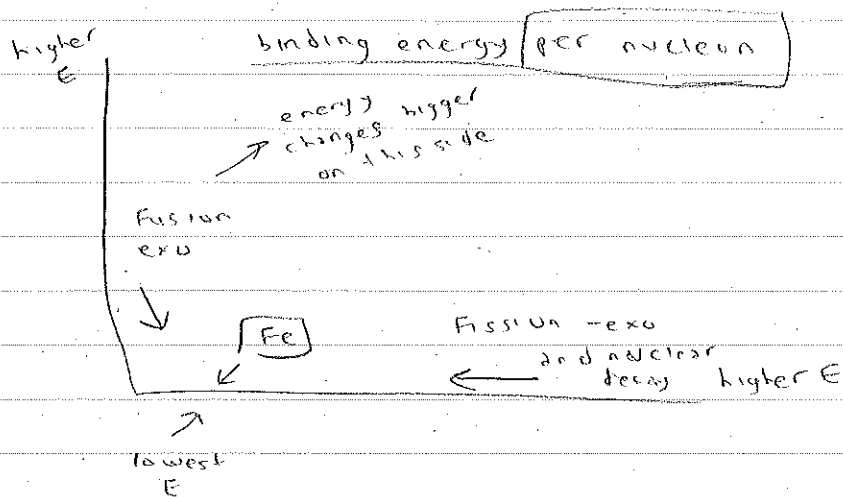
release energy

Binding E
H-3 & H-2



Binding E
He-4

- iron is most stable nucleus



(poll)

c2) what is nuclear radiation?

- all of above

- high energy electrons
- high energy small nuclei

Alpha radiation positive & massive