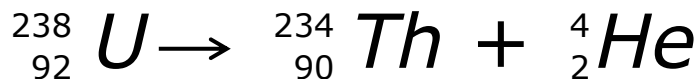
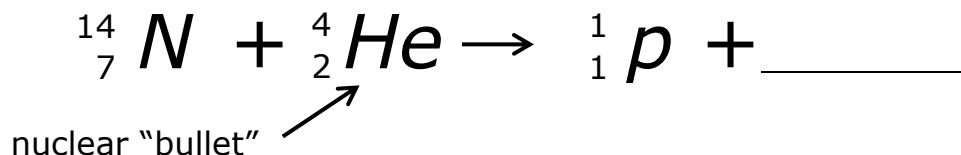


Lesson 162: Types of Nuclear Reactions Notes Chemistry with Lab

natural transmutation – Uranium spontaneously decays.

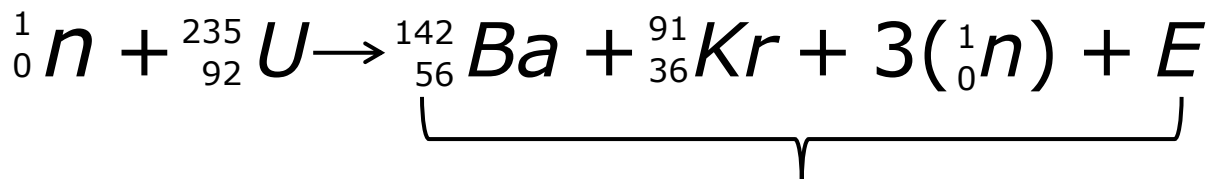


artificial transmutation – bombardment of a stable isotope to force it to decay.



When the bullets are _____ charged, they are _____
by the nucleus they are bombarding. To overcome the repulsions, they
must be _____ to very high speeds by _____
accelerators.

nuclear fission – Heavy nuclei are bombarded with neutrons and split.



Mass of particles produced is slightly _____ than the mass of the reactants.

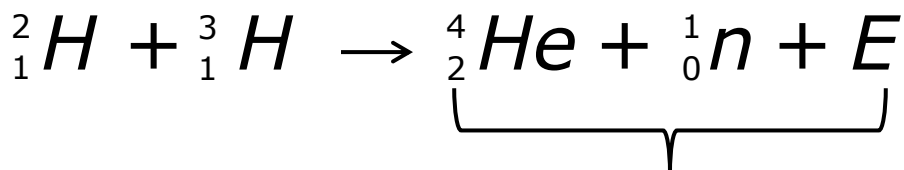
This mass is converted into _____ ($E = \underline{\hspace{2cm}}$)

- critical mass: _____ mass of _____
material required for a _____
- nuclear reactors: control fission _____ reactions to produce energy
dangers:

Lesson 162: Types of Nuclear Reactions (cont.)

Chemistry with Lab

nuclear fusion – combination of _____ nuclei into _____ with release of



Mass of particles produced is much _____ than the mass of the reactants.

This mass is converted into _____ (E = _____)

List advantages and problems with using fusion as an energy source: