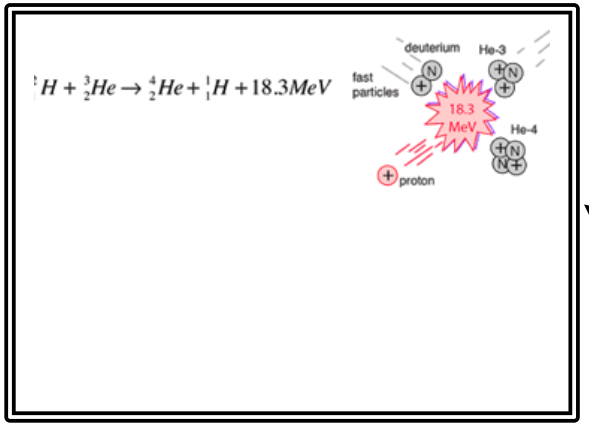
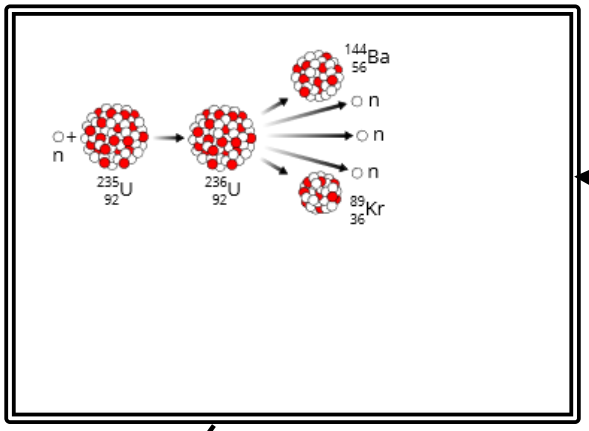
https://en.wikipedia.org/wiki/Discovery_of_nuclear_fission

http://hyperphysics.phy-astr.gsu.edu/hbase/NucEne/fusion.html

Nuclear reactions





Name and describe the nuclear reaction in the diagram

Name and describe the nuclear reaction in the diagram

State appropriate relationship to solve problems involving the mass loss and energy released by a nuclear reaction.

Explain plasma and how it is contained in nuclear fusion reactors.

$${}^{1}_{0}n + {}^{235}_{92}U \rightarrow {}^{98}_{42}Mo + {}^{136}_{54}Xe + 2{}^{1}_{0}n + 4{}^{0}_{-1}e$$

Name the type of reaction given above and how you would calculate the energy released

What is the definition of Beta decay?

The evidence for the existence of what is provided by Beta decay?

Calculate the energy released from the mass loss provided.

What is the mass and atomic number of U above?

What is the mass of a proton?

The mass of an electron is?

The mass of a neutron is?

Mass Before		*Mass after*	
${}^{235}_{92}U$	3.90088×10^{-25} kg	${}^{98}_{42}Mo$	1.6249×10^{-25} kg
${}^{1}_{0}n$	1.6749×10^{-27} kg	${}^{136}_{54}Xe$	2.2556×10^{-25} kg
Total 3.917629×10^{-25} kg		$2{}^{1}_{0}n$	3.3498×10^{-27} kg
		$4{}^{0}_{-1}e$	3.32×10^{-30} kg
		Total 3.914031×10^{-25} kg	