

Nuclear - from nucleus.

Isotope - Same #p (same element)

BUT different #n (At. Mass)

$\begin{matrix} 12 \\ 6 \end{matrix} \left(\right)$

 $\begin{matrix} 14 \\ 6 \end{matrix} \left(\right)$

 $\begin{matrix} 14 \\ 7 \end{matrix} \left(\right)$

 $\begin{matrix} 14 \\ 8 \end{matrix} \left(\right)$

radioactive dating

May 18-9:26 AM

Radioactive → Decays - mass constantly changes.

→ UNSTABLE

↳ spontaneously emitting energy (mass)

invisible

Pierre Curie
 Marie Soudovsk: Curie
 Henri: Berguere

Particle → TABLE ○
 Pure energy → Rays (no mass)

May 18-9:34 AM

Alpha particle	Beta particle	Gamma Ray
mass \rightarrow 4 nuclear charge \rightarrow 2 He (Helium nucleus)	≈ 0 $-1 e^-$	≈ 0 ≈ 0
α +2 charge 4 amu	(electron)	<u>Pure energy</u>
Slow - (comparatively) Paper stops it.	β^- , e^- -1 charge Mass ≈ 0	γ (X-Ray) 0 charge 0 Mass
	faster STOP \rightarrow wall	Really fast Lead, 6' + concrete

May 18-9:46 AM