Nuclear Radiation

Name	*Symbol*	*Composition*	*Mass*	*Charge*	*Speed*[*]	*Penetration*
alpha (α)	${}^{4}_{2}\alpha$ or ${}^{4}_{2}He$	He nucleus ($2p^+$ & $2n^0$)	4	2+	10% of *c*	low
beta (β)	β^- or ${}^{0}_{-1}e$	electron	0	1–	<90% of *c*	moderate
gamma (γ)	${}^{0}_{0}\gamma$ or γ	energy wave (photon)	0	0	*c*	very high
proton	${}^{1}_{1}H$ or ${}^{1}_{1}p$	proton	1	1+	10% of *c*	low-moderate
neutron	${}^{1}_{0}n$ or n	neutron	1	0	<10% of *c*	very high
positron[†]	β^+ or ${}^{0}_{+1}e$	positron	0	1+	<90% of *c*	moderate

* *c* = the speed of light, 2.998×10^8 m/s.

† The positron is a fast-moving "anti-particle," mass equal to an electron (1/1836 amu), but opposite charge (1+).