

Particle and Electronic Symbols Used in This Book

For this part of the book, two tables are given because some symbols refer to quantities and others refer to specific particles. The symbol's context should make clear which table should be consulted.

Symbol	Quantity
A	mass number
β	(Greek <i>beta</i>) current or potential difference gain of an amplifier
E	photon energy
E_R	rest energy
f_t	threshold frequency (photoelectric effect)
hf_t	work function (photoelectric effect)
KE_{max}	maximum energy of ejected photoelectron
λ	(Greek <i>lambda</i>) decay constant
λN	decay rate (activity)
N	neutron number, number of decayed particles
n	energy quantum number
$T_{1/2}$	half-life
Z	atomic number

Symbol	Particle
α	alpha particle
b, \bar{b}	bottom quark, antiquark
β^+	(Greek <i>beta</i>) positron (beta particle)
β^-	(Greek <i>beta</i>) electron (beta particle)
c, \bar{c}	charmed quark, antiquark
d, \bar{d}	down quark, antiquark
$e^+, {}^0_{+1}e$	positron
$e^-, {}^0_{-1}e$	electron
γ	(Greek <i>gamma</i>) photon (gamma rays)
${}^4_2\text{He}$	alpha particle (helium-4 nucleus)
μ	(Greek <i>mu</i>) muon
1_0n	neutron
1_1p	proton
s, \bar{s}	strange quark, antiquark
t, \bar{t}	top quark, antiquark
u, \bar{u}	up quark, antiquark
τ	(Greek <i>tau</i>) tauon
$\nu, \bar{\nu}$	(Greek <i>nu</i>) neutrino, antineutrino
W^+, W^-	boson (weak force)
Z	boson (weak force)