Subatomic Particles

Particle	Mass	Charge
Electron	$9.1*10^{-31}$kg	$-1.6*10^{-19}$C
Proton	$1.6*10^{-27}$kg	$+1.6*10^{-19}$C
Neutron	$1.6*10^{-27}$kg	Neutral

Energy

$$E = h\nu = \frac{hc}{\lambda}$$

$$\text{E} = \text{energy}$$
$$\text{h} = \text{planck's} \; constant$$
$$\nu = \text{frequency}$$
$$\text{c} = \text{speed of light}$$
$$\lambda = \text{wavelength}$$

Atomic Number

Z is used to denote the *Atomic Number* of an element.

Z= Number of protons in the nucleus

Constants

Constant	Symbol	Value
Planck's Constant	h	$6.6*10^{-34}$Js
Rydberg Constant	R	109678 cm^{-1}

Photoelectric Effect

Photoelectric Effect
(i) $E = W + K.E.$
(ii) $h\nu = h\nu_0 + \frac{1}{2}mu^2$
(iii) $h\nu = h\nu_0 + (stopping\ potential) * (charge)$
$h\nu_0$ *is aka 'threshold energy'*