

Electronvolt is the amount of kinetic energy gained or lost by a single electron accelerating from rest through an electric potential difference of one volt in vacuum. Hence, it has a value of one volt, 1 J/C , multiplied by the electron's elementary charge $e = 1.6021 \times 10^{-19} \text{ C}$.

Therefore, one electronvolt is equal to $1.602 \times 10^{-19} \text{ J}$