

3.4.20

Electrons: Ground Vs Excited State

Today's Objectives:

- Learn the Ground vs Excited State of electrons
- Describe parts of a wave
- Distinguish between the E-M Spectrum

Ground State: An electron's normal energy level.
- In this state most of the time.

add
energy

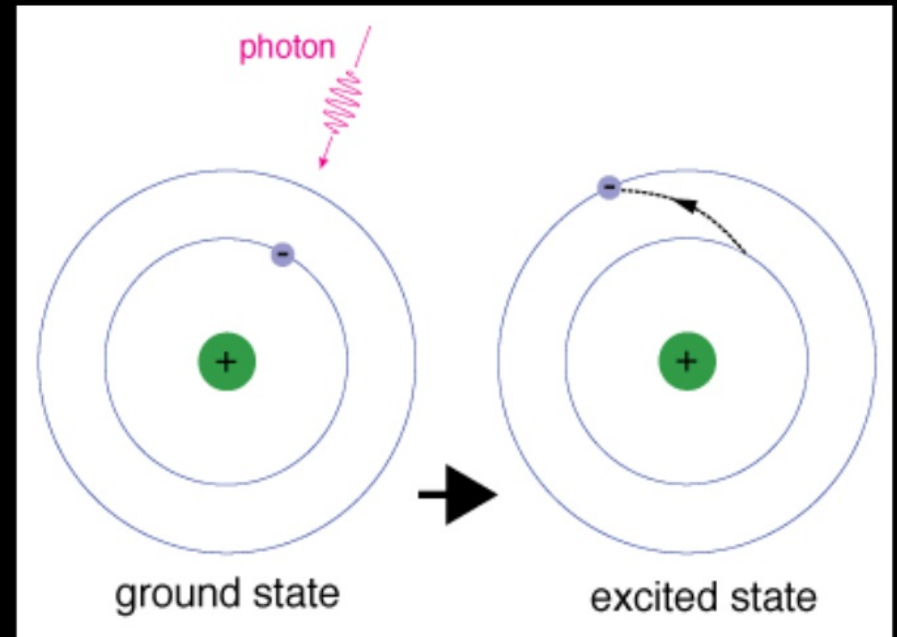


returns
to ground =

Energy is given off (Light)

Excited State: Electron jumps
Up to a higher
energy level.

- Temporary



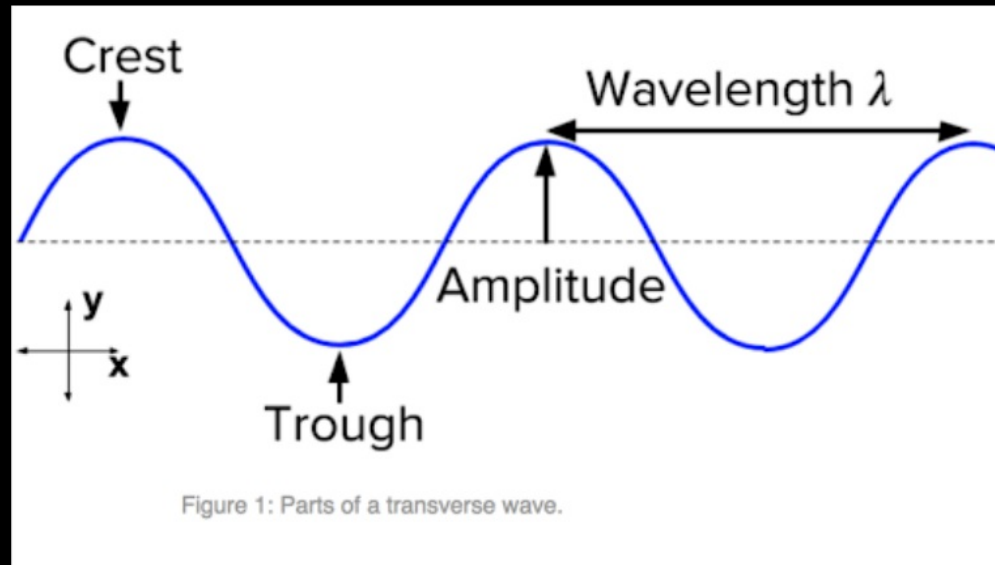
* Metals LOSE electrons to form \oplus ions,
called Cations.

* Non-Metals GAIN electrons to form \ominus ions,
called Anions.

How many electrons does each element lose or gain?

[illegible]

Energy travels as a wave.



When freq \uparrow
Wavelength \downarrow .

Wave Vocab to Know:

Amplitude - Wave Height

Wavelength - Crest to Crest Distance

Frequency - how many crest appear each second.

Electromagnetic Spectrum (E-M) (Types of Waves)

Radio/TV

Largest Wavelength

Microwave

Infrared (Heat)

Visible Light - what we can see (1%)

Ultraviolet

X-Rays

Gamma Rays

Smallest Wavelength

Ionizing Radiation

