

Learning Target 4.4

I can state and explain the trends for electronegativity and ionization energy found on the periodic table.

Patterns

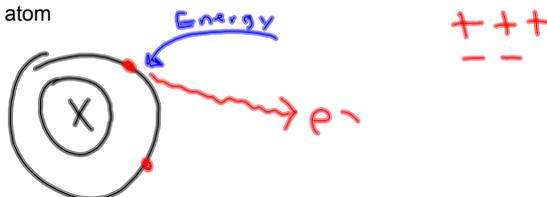
e^-

Ion: Atom
w/
Charge
(+, -)

Nov 15-8:42 AM

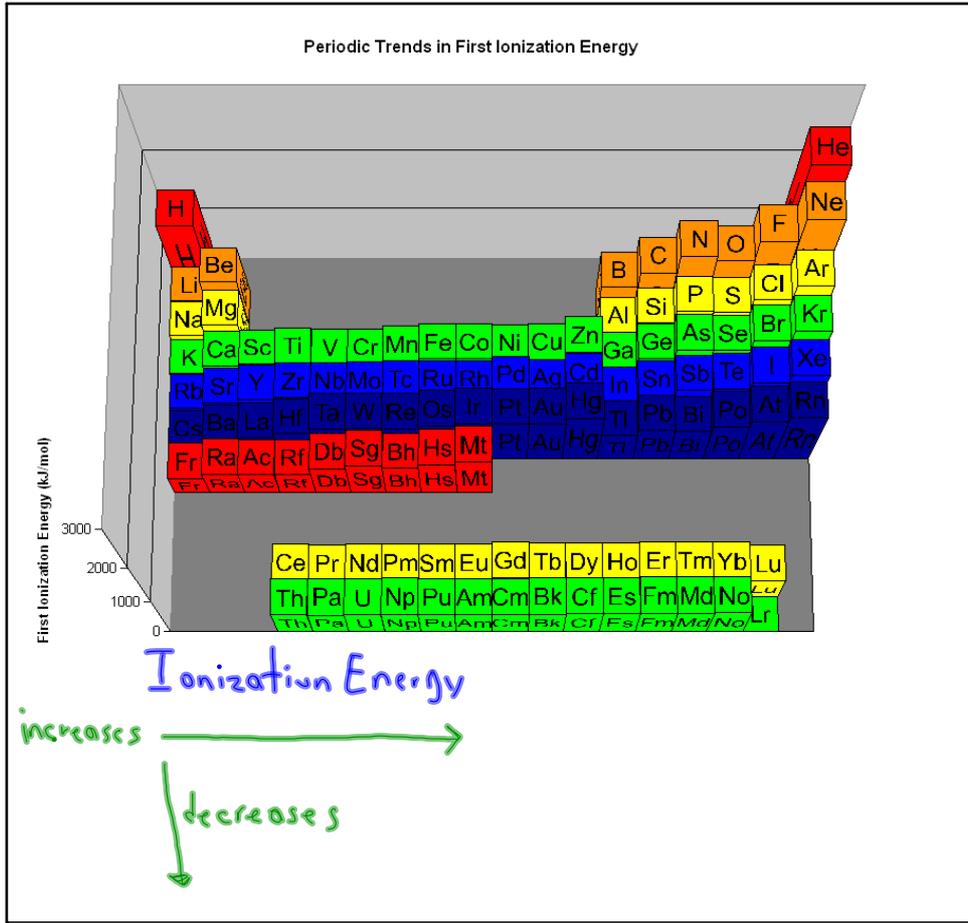
Ionization Energy

The amount of energy required to remove an electron from an atom



- High ionization energy less likely to form positive ions. Why? *the atom is holding onto the electron with a lot of force requiring large energy to remove it. (Noble Gases)*
- Low ionization energy more likely to form positive ions. Why? *These atoms are NOT holding onto e^- with a lot of force. thus it takes less energy to remove electron. (Group 1 and 2)*

Nov 15-8:46 AM



Nov 15-8:53 AM

Electronegativity

The relative ability of an atom to attract electrons in a chemical bond.

- electron pair is pulled closer to the atom with higher electronegativity.

$\text{H} - \text{F}$
 $\text{H} \text{ : } \text{F}$

the electrons in the bond are pulled closer to F.

Increases →
 ↓ decrease

. Fe Li P
 2) 3) 1)

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- electrons in chemical bond
are pulled closer to the
element with higher electronegativity.

Nov 16-9:26 AM

Why do we care!

Nov 15-8:46 AM