

(L19) Ions

TODAY'S
DATE

E.Q.: How is chemical stability related to the arrangement of electrons in atoms?

noble gases are the most chemically stable elements due to the # of valence e^- they have

e.g., He maxes 1st energy level w/ 2 e^- , rest max their outermost energy level or shell w/ 8 e^-

reactive elements can achieve greater stability by gaining or losing their valence e^- , thus having an e^- arrangement similar to a noble gas

(Ion) - an atom or group of bonded atoms that has a positive or negative charge

there is a pattern in ion charges. - for the most part metals form cations + nonmetals form anions

cation - an ion that has a positive charge
e.g., Li^+ , Mg^{2+}

anion - an ion that has a negative charge
e.g., O^{2-} , Cl^-