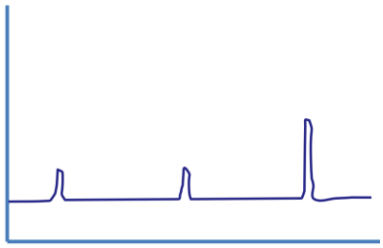
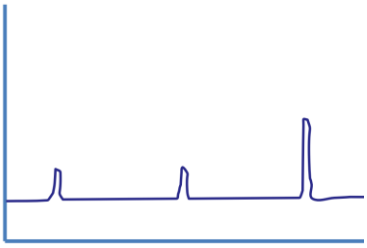
Glue Ins for your notes while I am gone
– in backwards order so you can cut them off the packet each day :-)

N19

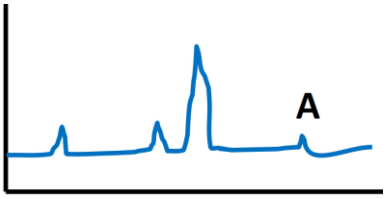
Oxygen:



Scandium:

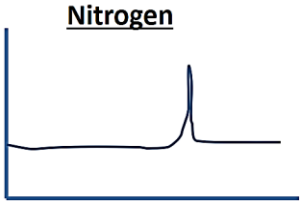


Example #1:

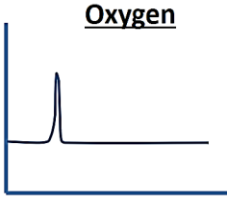


Example #2:

Nitrogen



Oxygen



Example #3:

N18

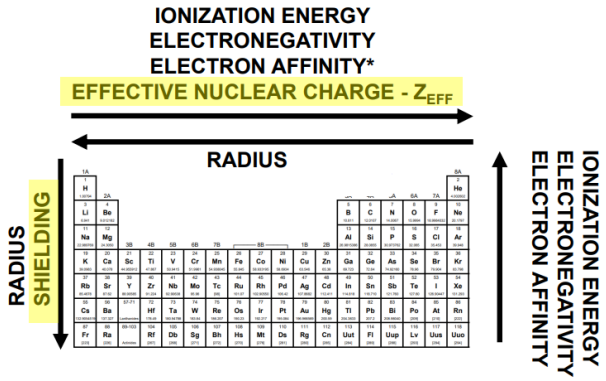
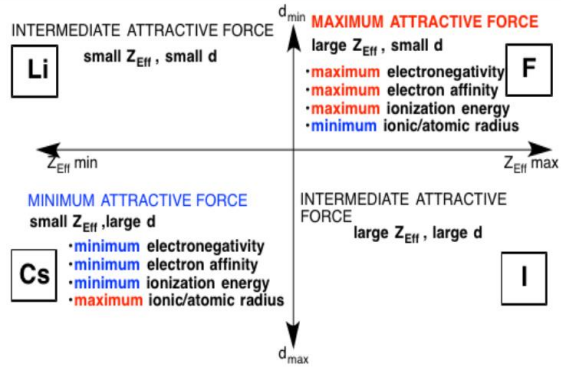
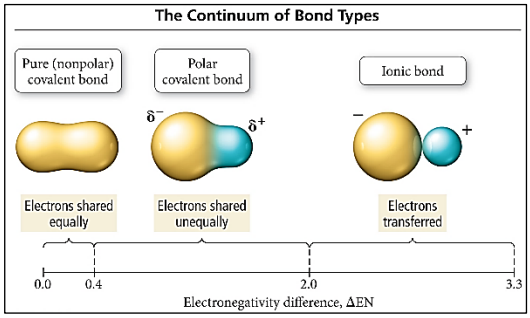


TABLE 8.1 Successive Values of Ionization Energies for the Elements Sodium through Argon (kJ/mol)

Element	IE_1	IE_2	IE_3	IE_4	IE_5	IE_6	IE_7
Na	496	4560					
Mg	738	1450	7730		Core electrons		
Al	578	1820	2750	11,600			
Si	786	1580	3230	4360	16,100		
P	1012	1900	2910	4960	6270	22,200	
S	1000	2250	3360	4560	7010	8500	27,100
Cl	1251	2300	3820	5160	6540	9460	11,000
Ar	1521	2670	3930	5770	7240	8780	12,000





N16

de Broglie Equation

$$\lambda = \frac{h}{mv}$$

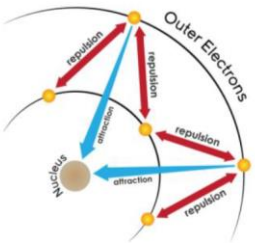
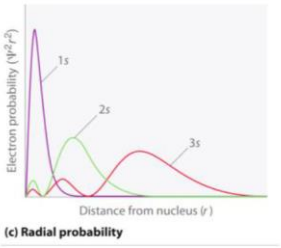
m = particle mass

Bohr Equation

$$E = -2.178\ x\ 10^{-18} J \left(\frac{Z^2}{n^2}\right)$$

Z = nuclear charge
n = energy level

Energy Change Between Two Energy Levels

$$E = -2.178\ x\ 10^{-18} J \left(\frac{Z^2}{n^2_{final}} - \frac{Z^2}{n^2_{initial}}\right)$$

N17