

## ELECTRONEGATIVITY

<u>H</u> 2.1																	<u>He</u>
<u>Li</u> 1.0	<u>Be</u> 1.6											<u>B</u> 2.0	<u>C</u> 2.6	<u>N</u> 3.0	<u>O</u> 3.4	<u>F</u> 4.0	<u>Ne</u>
<u>Na</u> 0.9	<u>Mg</u> 1.3											<u>Al</u> 1.6	<u>Si</u> 1.9	<u>P</u> 2.2	<u>S</u> 2.6	<u>Cl</u> 3.2	<u>Ar</u>
<u>K</u> 0.8	<u>Ca</u> 1	<u>Sc</u> 1.4	<u>Ti</u> 1.5	<u>V</u> 1.6	<u>Cr</u> 1.7	<u>Mn</u> 1.6	<u>Fe</u> 1.8	<u>Co</u> 1.9	<u>Ni</u> 1.9	<u>Cu</u> 1.9	<u>Zn</u> 1.7	<u>Ga</u> 1.8	<u>Ge</u> 2.0	<u>As</u> 2.2	<u>Se</u> 2.6	<u>Br</u> 3.0	<u>Kr</u> 3.0
<u>Rb</u> 0.8	<u>Sr</u> 1.0	<u>Y</u> 1.2	<u>Zr</u> 1.3	<u>Nb</u> 1.6	<u>Mo</u> 2.2	<u>Tc</u> 1.9	<u>Ru</u> 2.2	<u>Rh</u> 2.3	<u>Pd</u> 2.2	<u>Ag</u> 1.9	<u>Cd</u> 1.7	<u>In</u> 1.8	<u>Sn</u> 2.0	<u>Sb</u> 2.1	<u>Te</u> 2.1	<u>I</u> 2.7	<u>Xe</u> 2.6
<u>Cs</u> 0.8	<u>Ba</u> 0.9	<u>La</u> 1.1	<u>Hf</u> 1.3	<u>Ta</u> 1.5	<u>W</u> 2.4	<u>Re</u> 1.9	<u>Os</u> 2.2	<u>Ir</u> 2.2	<u>Pt</u> 2.3	<u>Au</u> 2.5	<u>Hg</u> 2.0	<u>Tl</u> 2.0	<u>Pb</u> 2.3	<u>Bi</u> 2.0	<u>Po</u> 2.0	<u>At</u> 2.2	<u>Rn</u>
<u>Fr</u> 0.7	<u>Ra</u> 0.9	<u>Ac</u> 1.1	<u>Rf</u>	<u>Db</u>	<u>Sg</u>	<u>Bh</u>	<u>Hs</u>	<u>Mt</u>	<u>Ds</u>	<u>Rg</u>							

Using the table of electronegativities (EN) decide which type of bond should be formed between the two atoms: ionic (I), polar covalent (PC), or nonpolar covalent (NPC).

	EN		EN	EN Difference	Type of Bond
Arsenic		Sulfur			
Cobalt		Bromine			
Germanium		Selenium			
Silicon		Fluorine			
Potassium		Nitrogen			
Nickel		Oxygen			
Barium		Tin			
Hydrogen		Oxygen			
Calcium		Sulfur			
Iron		Carbon			

Compare the degree of polarity in HF, HCl, HBr, and HI. In other words, describe what happens to the electronegativity and therefore the polarity!

How does an element's electronegativity relate to its position on the periodic table?

Using the electronegativity chart, what is the greatest possible ionic difference?