

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 3J – Electronegativity

20 Points

Answer the following questions

Define Electronegativity	Define Polar Bond
Define Non-Polar Bond	Define Ionic Bond

Calculate the Electronegativity for the following molecules, and polarity

Ionic – ED > 1.9	Polar – ED 0.5 – 1.9	Non-Polar – ED < 0.5
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Na - Cl		Al - O		H - N	
Elect. Na	Elect. Cl	Elect. Al	Elect. O	Elect. H	Elect. N
Electronegativity Difference		Electronegativity Difference		Electronegativity Difference	
Bond Type		Bond Type		Bond Type	

H - O		P - Cl		Cl - Cl	
Elect. H	Elect. O	Elect. P	Elect. Cl	Elect. Cl	Elect. Cl
Electronegativity Difference		Electronegativity Difference		Electronegativity Difference	
Bond Type		Bond Type		Bond Type	

Electronegativity Table Metals and Non-Metals																			He ---							
H 2.1																			He ---							
Li 1.0		Be 1.5																		B 2.0		C 2.5	N 3.0	O 3.5	F 4.0	Ne ---
Na 0.9		Mg 1.2																		Al 1.5		Si 1.8	P 2.2	S 2.5	Cl 3.0	Ar ---
K 0.8	Ca 1.0	Sc 1.3	Ti 1.5	V 1.6	Cr 1.6	Mn 1.5	Fe 1.8	Co 1.8	Ni 1.8	Cu 1.9	Zn 1.6	Ga 1.6	Ge 1.8	As 2.0	Se 2.4	Br 2.8	Kr 3.0									
Rb 0.8	Sr 1.0	Y 1.2	Zr 1.4	Nb 1.6	Mo 1.8	Tc 1.9	Ru 2.2	Rh 2.2	Pd 2.2	Ag 1.9	Cd 1.7	In 1.7	Sn 1.8	Sb 1.9	Te 2.1	I 2.5	Xe 2.6									
Cs 0.7	Ba 0.9	La-Lu 1.1-1.2	Hf 1.3	Ta 1.5	W 1.7	Re 1.9	Os 2.2	Ir 2.2	Pt 2.2	Au 2.4	Hg 1.9	Tl 1.8	Pb 1.8	Bi 1.9	Po 2.0	At 2.2	Rn ---									
Fr 0.7	Ra 0.9	Ac-No 1.1-1.7																								