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Electronegativity Scale

TODAY'S
DATE

E.Q.: How can electronegativity be used to compare bonds?

chemists have assigned each atom an electronegativity value that corresponds to the tendency of an atom to attract bonding electrons

electronegativity values can be used to compare the polarity of different bonds



electronegativity difference

- 0 - 0.3/0.5 = nonpolar covalent
- 0.3/0.5 - 1.7/2.1 = polar covalent
- 1.7/2.1 - 3.3 = ionic

diatomic molecule a molecule consisting of 2 atoms
e.g., Cl_2 , HCl

Electronegativity scale

H										He															
Li		Be												B		C		N		O		F		Ne	
Na		Mg												Al		Si		P		S		Cl		Ar	
K		Ca		Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr						
Rb		Sr		Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe						
Cs		Ba		La*	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn						
Fr		Ra		Ac*																					

* Electronegativity values for the lanthanides and actinides range from about 1.10 to 1.50.

Electronegativity difference

