

Electronegativity

1) Rank the following elements in order of decreasing electronegativity:

Li, C, N, O, K, Br, Mg, Cl, I, F,

F, O, N, Cl, Br, I, C, Mg, Li, K

2) Which element is expected to form the most polar bond with carbon?

A Fluorine

B Chlorine

C Oxygen

D Sulphur

3) Sulphur would be expected to form the most polar bond with

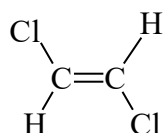
A O

B Cl

C P

D F

4) Add δ^+ and δ^- symbols to the following molecule



Cl atoms both δ^-
C atoms both δ^+

5) Compare the relative polarity of the N-F and C-F bonds. (which is more polar?) Explain your answer. [3]

F is more electronegative than N and C, so both bonds are polar

Bigger difference between F and C

C-F bond more polar

6) Which element in the periodic table would you expect to have the lowest electronegativity value? Why?

Fr, biggest atom in PT.

7) Why do group 8 elements, like He, not have an electronegativity value?

Electronegativity is the ability to attract a **shared** pair of e

He has a full outer shell

He doesn't share electrons