

Covalent Bonds!

↳ share → valence electrons!

Pure covalent bond

- Good at sharing; equal pull
- No separation of charge
- No polarity
- Electronegativity Range (Eneg)

0.0 - 0.4



pure covalent bond

$$\frac{2.1}{-2.1}$$

pure covalent.
Sharing nicely

Polar covalent bond

- Not good at sharing; one element pulls more than the other.
- Partial separation of charge
- have a dipole moment

↳ has a ^(more) positive side + ^(more) negative side

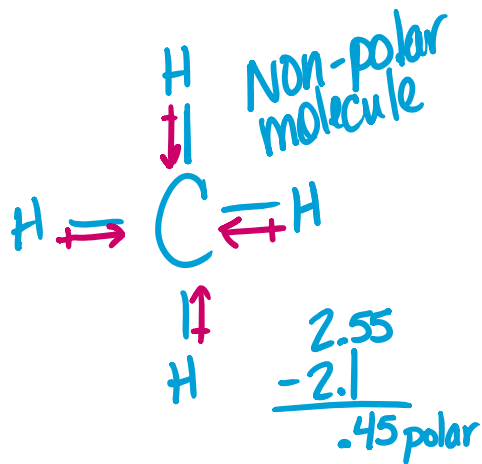
more + side → more negative side

• Look at bonds THEN @ molecule

• Eneg Range

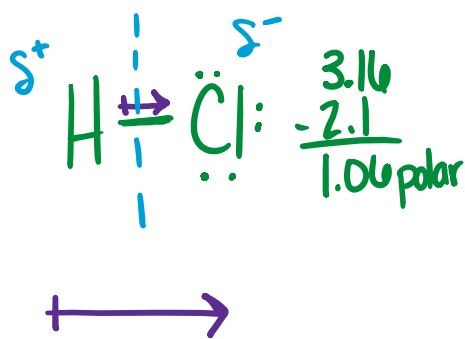
[.041 - 1.8]

Non-polar molecule: no pull in any one direction



Polarity

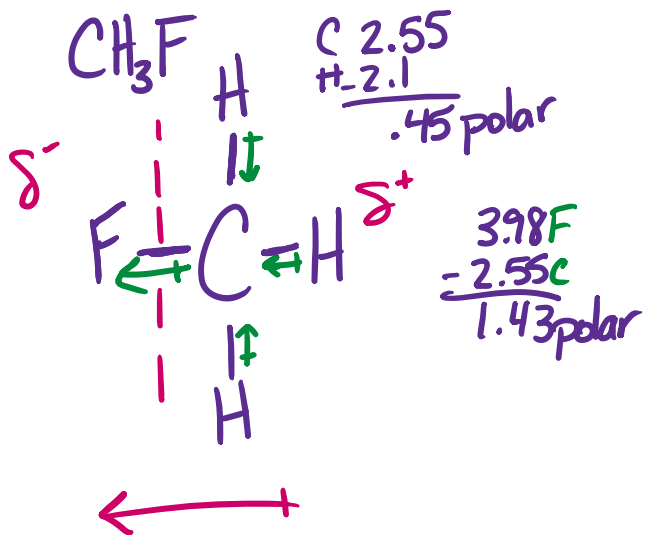
1. Draw the structure
2. Determine eneg for each bond
↳ pure? or polar?
3. If... → polar, draw dipole arrows
→ pure, done (Non-polar)



4. Dipole arrows point toward more eneg atom.

5. Determine polarity of molecule.

- if no pull, non-polar
- if pull... show separation of charge and overall dipole moment.



- * 1. Draw imaginary line to separate partial charges
... Perpendicular to bond that makes it polar

2. Label each side w/ δ^+ + δ^-

3. Draw dipole moment (big dipole arrow)