

Determining Types of Bonds

Basic Method, works most of the time.

M+NM=Ionic

NM+NM=Covalent

Label each compound as Ionic or Covalent using Basic Method from above:

MgCl₂

CH₄

H₂O

O₂

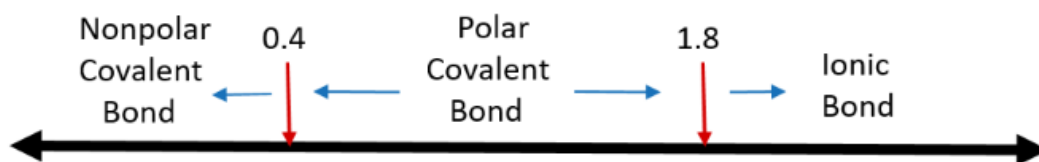
C₆H₁₂O₆

Fe₂O₃

NaCl

More precise method. Use Electronegativity Differences.

Electronegativity Difference



Write down the electronegativity of each, write down the difference, and then label each bond as: Nonpolar Covalent, Polar Covalent, or Ionic

Cl-Cl

Mg-Cl

F-O

N-O

I-F

Al-O

Be-N

Li-C

Li-N

N-F

Electronegativity Differences

1. In general, what are the types of atoms combined in an ionic bond?
2. In general, what are the types of atoms combined in a covalent bond?
3. In which type of bond are electrons shared between each other?
4. In which type of bonds are electrons transferred from one atom to another?
5. What does Electronegativity mean?
6. Which elements have the highest electronegativities and why?
7. Which elements have no electronegativity and why?
8. What is the difference between a polar covalent bond and a non-polar covalent bond.
9. In an ionic bond, which atom will form a positive ion?
10. Label the following as Ionic or Covalent using the basic/simple method.



[Answer Key](#)