

Name: _____

Date: KEY

Intramolecular and Intermolecular Bonding

Part 1 – Determine the type of intramolecular bond in each compound, and then draw an example of the bond with full charges, partial charges, or no charges.

Part 2 – Determine the type of intermolecular bond in each compound.

Compound	Intramolecular	Example	Intermolecular
NaF	ionic	+ Na --- F -	ionic
CH ₄	Polar Covalent	δ^- C --- H δ^+	Dipole-Dipole
F ₂	Non-Polar Covalent	F --- F	Dispersion Forces
NH ₃	Polar Covalent	δ^- N --- H δ^+	Hydrogen Bonding
CCl ₄	polar cov	δ^+ C --- Cl δ^-	dipole-dipole
KCl	ionic	+ K --- Cl -	ionic
SO ₃	polar cov	δ^+ S --- O δ^-	dipole-dipole
O ₂	non-polar cov	O --- O	dispersion
SnS	polar cov	δ^+ Sn --- S δ^-	dipole-dipole
H ₂ O	polar cov	δ^+ H --- O δ^-	hydrogen
BiCl ₃	polar cov	δ^+ Bi --- Cl δ^-	dipole-dipole
CuO	polar cov	δ^+ Cu --- O δ^-	dipole-dipole
MgBr ₂	polar cov	δ^+ Mg --- Br δ^-	dipole-dipole
PH ₅	non-polar cov	P --- H	dispersion
MnS ₂	polar cov	δ^+ Mn --- S δ^-	dipole-dipole
SeF ₄	polar cov	δ^+ Se --- F δ^-	dipole-dipole
NI ₃	polar cov	δ^- N --- I δ^+	dipole-dipole
NO ₂	polar cov	δ^+ N --- O δ^-	dipole-dipole
Cl ₂	non-polar cov	Cl --- Cl	dispersion
CaS	polar cov	δ^+ Ca --- S δ^-	dipole-dipole
Al ₂ O ₃	ionic	+ Al --- O δ^-	ionic
AsCl ₃	polar cov	δ^- Cl --- As δ^+	dipole-dipole
N ₂	non-polar cov	N --- N	dispersion
SiO ₂	polar cov	δ^+ Si --- O δ^-	dipole-dipole