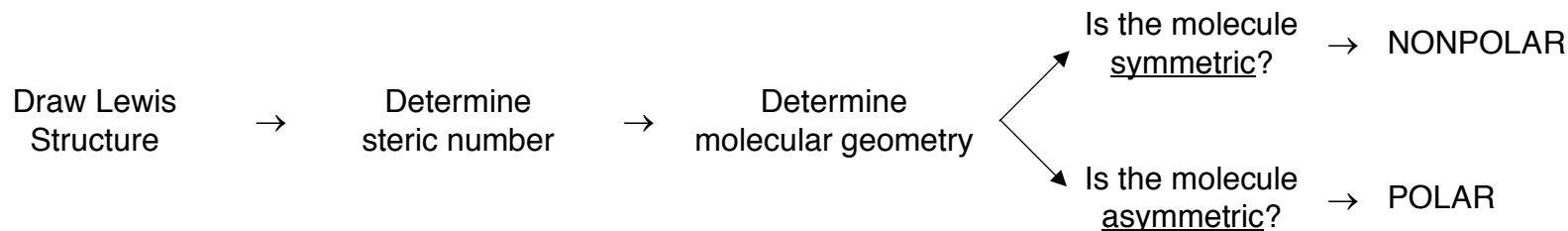


POLARITY



INTERMOLECULAR FORCES

IONIC COMPOUNDS

MOLECULAR/CONVALENT COMPOUNDS

Ion-Ion	>	Ion-Dipole	>	Hydrogen Bonding	>	Dipole-Dipole	>	Dipole-Induced Dipole	>	London Dispersion							
<ul style="list-style-type: none"> • POLAR • Between two+ ionic compounds 		<ul style="list-style-type: none"> • POLAR • Ionic compound + polar compound 		<ul style="list-style-type: none"> • POLAR • H bonded to N/O/F • H near lone pair on N/O/F 		<ul style="list-style-type: none"> • POLAR • Must have molecular dipole 		<ul style="list-style-type: none"> • POLAR + NONPOLAR • One must have molecular dipole 		<ul style="list-style-type: none"> • NONPOLAR 							
<i>Strongest when:</i>						<i>Strongest when:</i>			<i>Stronger induced dipoles when:</i>								
<ul style="list-style-type: none"> • High charges • Small distance 						<ul style="list-style-type: none"> • Large ΔEN • Large dipole 			<ul style="list-style-type: none"> • Lots of electrons \rightarrow More polarizable • Large mass \rightarrow More polarizable • More spread out \rightarrow More polarizable 								
<u>Examples</u>		<u>Examples</u>		<u>Examples</u>		<u>Examples</u>		<u>Examples</u>		<u>Examples</u>							
NaCl BaSO ₄		NaCl + H ₂ O NaCl + NH ₃		H ₂ O + H ₂ O NH ₃ + H ₂ O NH ₃ + NH ₃		H ₂ O + H ₂ O NH ₃ + H ₂ O NH ₃ + NH ₃		Br ₂ + H ₂ O CH ₄ + H ₂ O NH ₃ + He		Br ₂ + Br ₂ Br ₂ + CH ₄ Xe + Ar							
<u>HIGHER:</u> Boiling Point Melting Point Freezing Point						←						<u>LOWER:</u> Boiling Point Melting Point Freezing Point					