Unit 4 Chemistry Test Cheat Sheet

by sunyzz via cheatography.com/50431/cs/13918/

Polar vs Non-Polar

Polar	Non-Polar
made with two or more non-metals	no electrical poles
one end has a positive charge, the other has a negative.	electrons divided more equally
has electrical poles	charges cancel out
soluble in water	not soluble in water, but maybe like oil

Ionic vs Covalent

Ionic	Covalent
electrons not shared equally	electrons shared equally
high melting point	low melting point
between one metal and one non-metal	between two non-metals

Intermolecular Force

London Dispersion	weakest intermolecular force.temporary attractive force that results when the electrons in two adjacent atoms occupy positions that make the atoms form temporary dipoles.
Dipole-Dipole	occurs between two polar molecules. slightly stronger than london dispersion. slightly positive attracts to slightly negative end. a good example is hydrochloride (HCl)
Ion-Dipole	attraction between an ion and a neutral molecule that has a dipole. most commonly found in solutions.ion with non-polar molecule.weaker than covalent or ionic bonds. polar water and sodium ion.

Non-Polar? Or Polar?

Looking at Lewis Structure

if bonds are symetrical, it is non-polar. if it is asymmetrical it is polar.

Solubility Rules

Always Soluble	Exceptions	Insoluble
Nitrates	"PMS"	silver salts
Acetates (C2,H3,O2-)	P>Pb2 (lead)	hydroxide salts (slightly)
Group 1 (Li+, Na+, etc)	M>M-ercury (Hg2)	hydroxide salts of transition metals
Sulfates	S>Silver (Ag)	sulfides of transition metals
Ammonium (NH4+)		carbonates
Group 17 (F-,Cl-,Br-)		chromates
		phosphates and fluorides

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