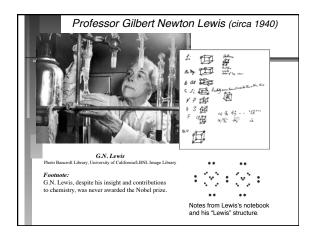
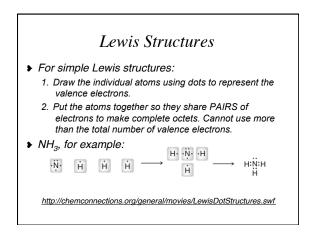
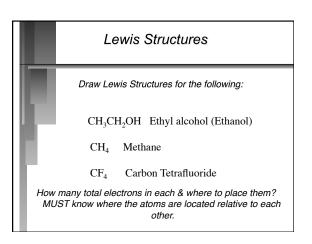
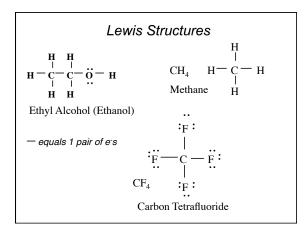


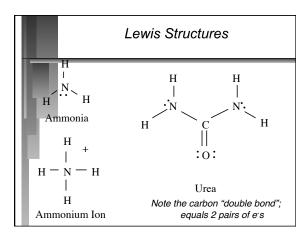
				Teru	ods 2 8	25			
		1A(1)	2A(2)	3A(13)	4A(14)	5A(15)	6A(16)	7A(17)	8A(18)
		ns <sup>1</sup>	ns <sup>2</sup>	ns <sup>2</sup> np <sup>1</sup>	ns²np²	ns <sup>2</sup> np <sup>3</sup>	ns²np4	ns <sup>2</sup> np <sup>5</sup>	ns²np <sup>6</sup>
Period	2	۰Li	•Be•	• B •	٠ċ٠	• <u>N</u> •	: • •	: F :	:Ne:
Per	3	• Na	•Mg•	• AI •	• Si •	• • •	: s ·	: ;; :	: Ar :

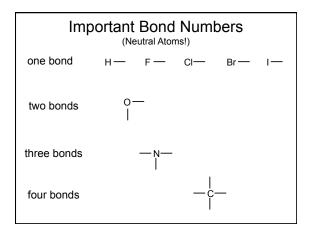




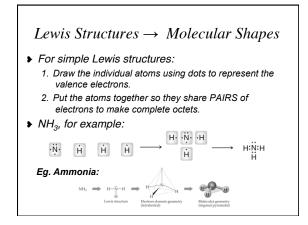


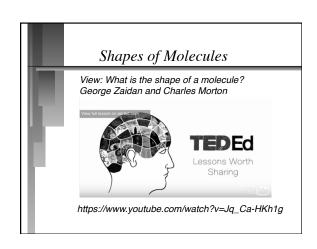


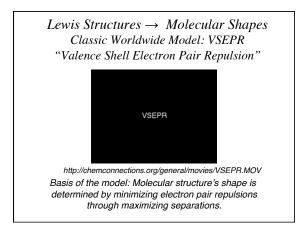


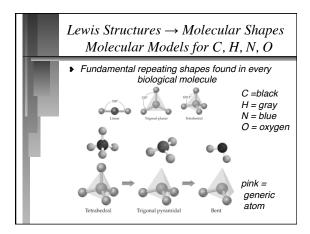


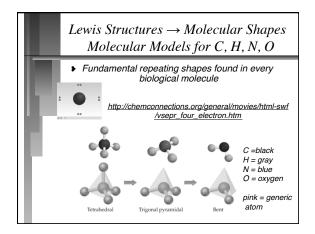
(Ne				nt Bond / Normal ele <sup>Organic Chemistry</sup>				)	
	С			Н О		N			
# of Valence e s	4			1	6		5		
Total # of Bonds (neutral atom)	4			1	2		3		
Combinations of bonds (neutral atom):									
# of single bonds	4	2	1	1	2	0	3	1	0
# of double bonds	0	1	0	0	0	1	0	1	0
# of triple bonds	0	0	1	0	0	0	0	0	1
Total Bonds	4	4	4	1	2	2	3	3	3
# of Free Pairs of electrons	0	0	0	0	2	2	1	1	1

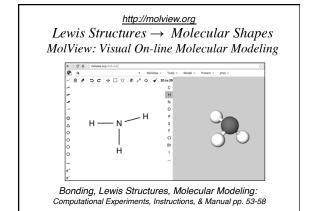


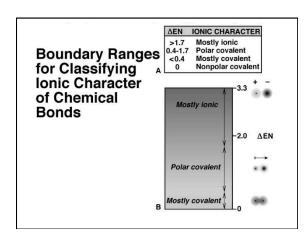


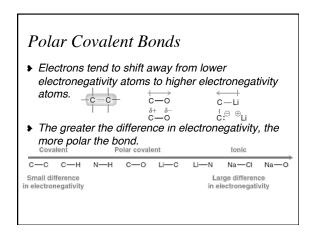


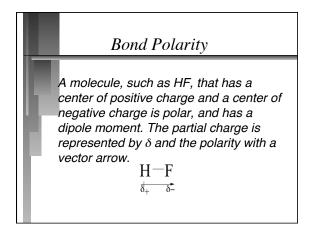


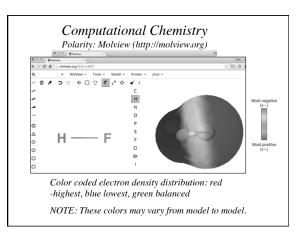


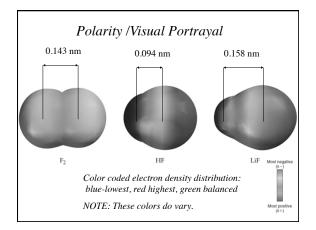


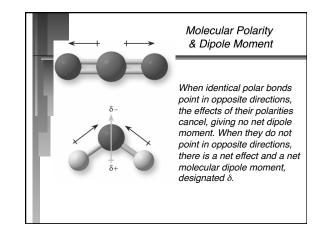


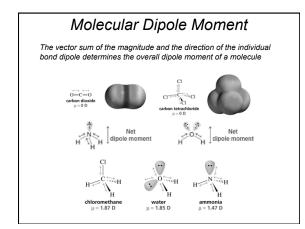


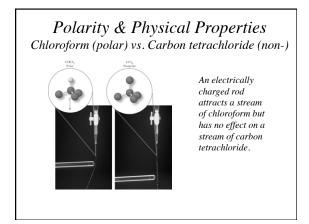


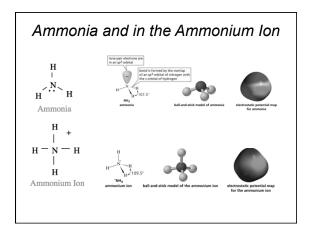


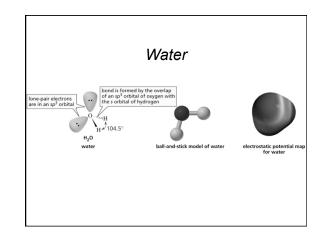


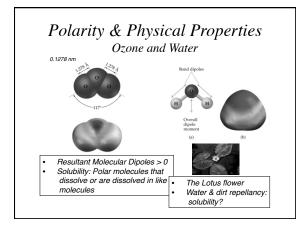








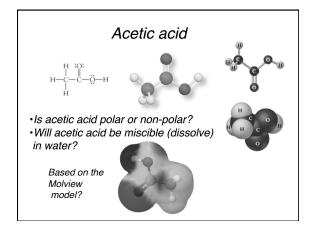


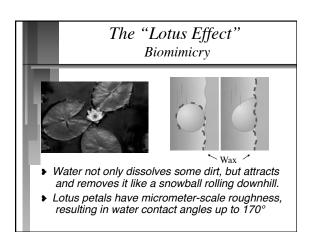


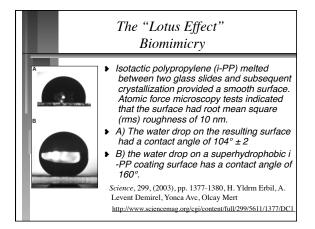
## Polarity & Physical Properties Solubility

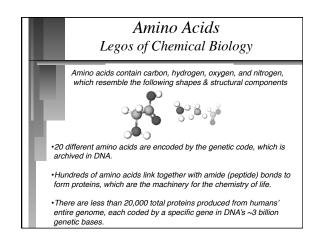
Generally likes dissolves like:

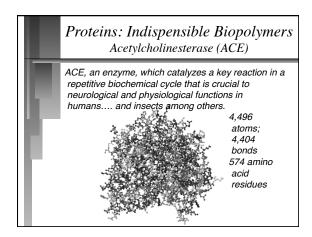
- Polar compounds dissolve other polar compounds & ionic compounds. Eg. ethanol and water, sodium chloride and water, sugar and water
- Nonpolar compounds are soluble in other nonpolar compounds. Eg. carbon tetrachloride and oil, diesel and gasoline

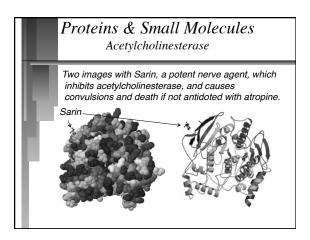


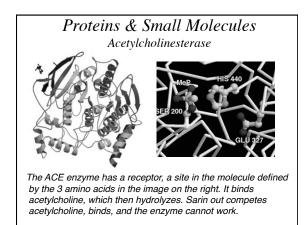


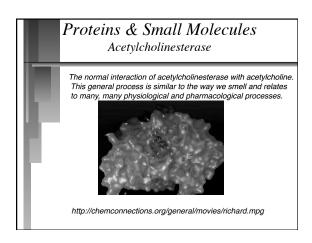


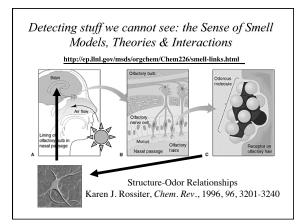


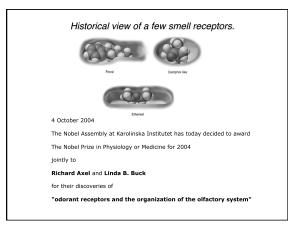


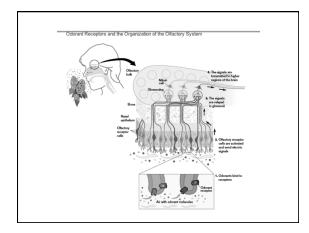


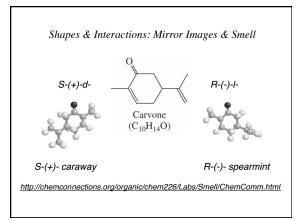


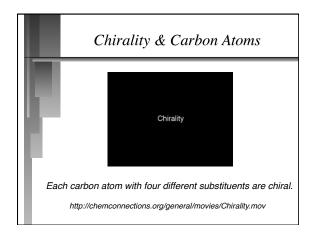


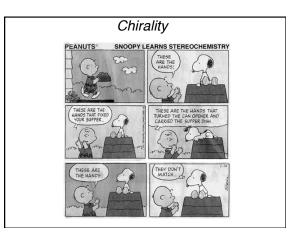


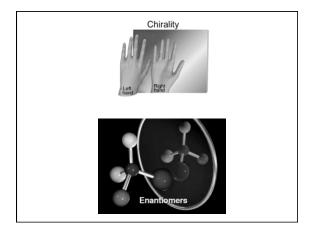












## Stereoisomerism

- Enantiomers are chiral:
- i.e. They are non-superimposable mirror images.
- Most physical and chemical properties of enantiomers are identical.
- Therefore, enantiomers are very difficult to separate eg. Tartaric acid... Louis Pasteur:



 Enantiomers can have very different physiological effects: eg. (+) and (-) carvone, Advil (ibuprofen) ...... (thalidomide)

