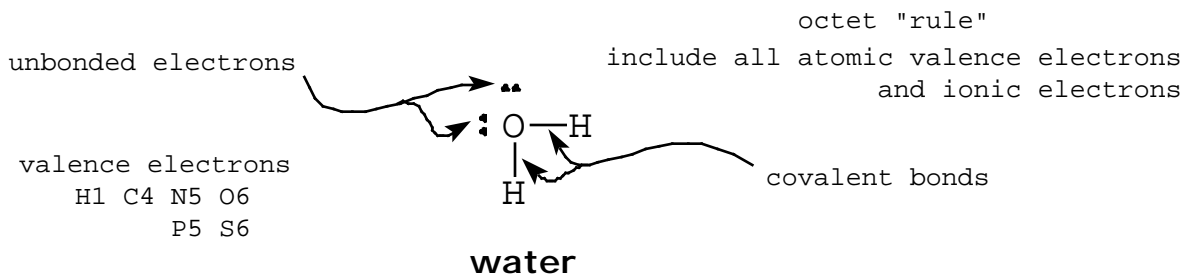


CHEMICAL BONDING AND MOLECULAR STRUCTURE

VALENCE BOND REPRESENTATIONS - LEWIS FORMULAS



Hydrogen Bonding

{unbonded e's of O or N and H covalently bonded to O or N}

Formal Charge

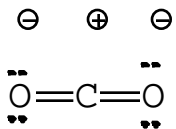
{valence e's atom - e's assigned in structure}

Electronegativity

{F>O>N~Cl ; C~H}

{bond polarity, partial charges}

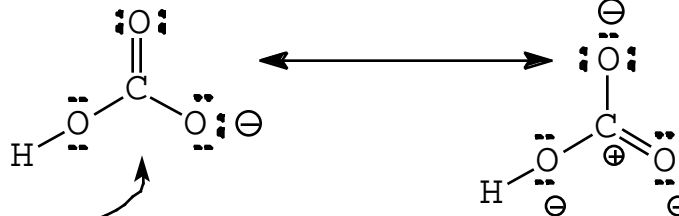
⊕ ⊖



carbon dioxide

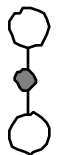
Resonance

{stabilization}



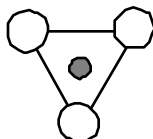
bicarbonate ion

sp



linear

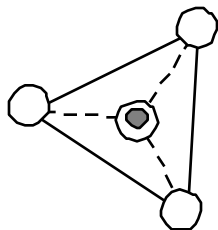
*sp*²



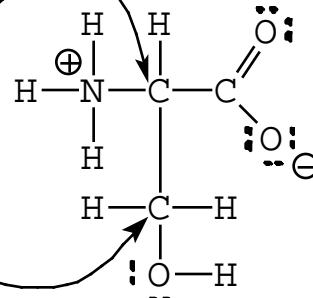
planar

Hybridization

*sp*³



tetrahedral



serine zwitterion