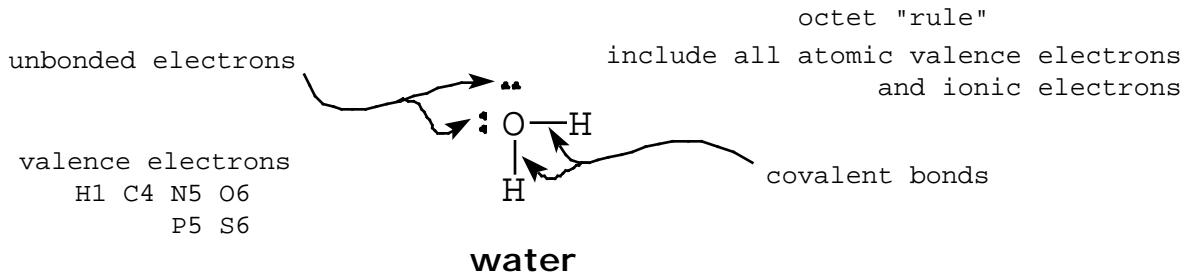


CHEMICAL BONDING AND MOLECULAR STRUCTURE

VALENCE BOND REPRESENTATIONS - LEWIS FORMULAS



Hydrogen Bonding

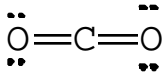
{unbonded e's of O or N and H covalently bonded to O or N}

Formal Charge

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

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

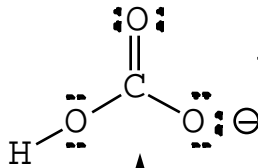
{bond polarity, partial charges}



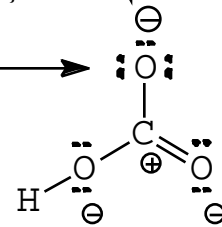
carbon dioxide

Resonance

{stabilization}



bicarbonate ion

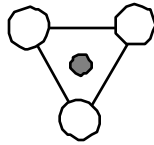


sp



linear

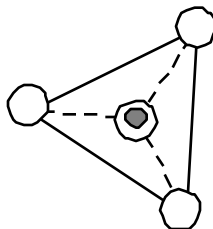
sp²



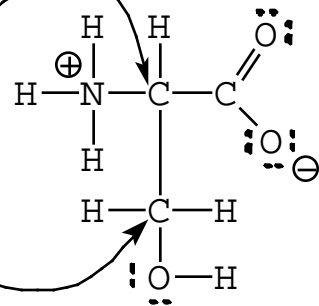
planar

Hybridization

sp³



tetrahedral



serine zwitterion