

VALENCE BOND MODEL

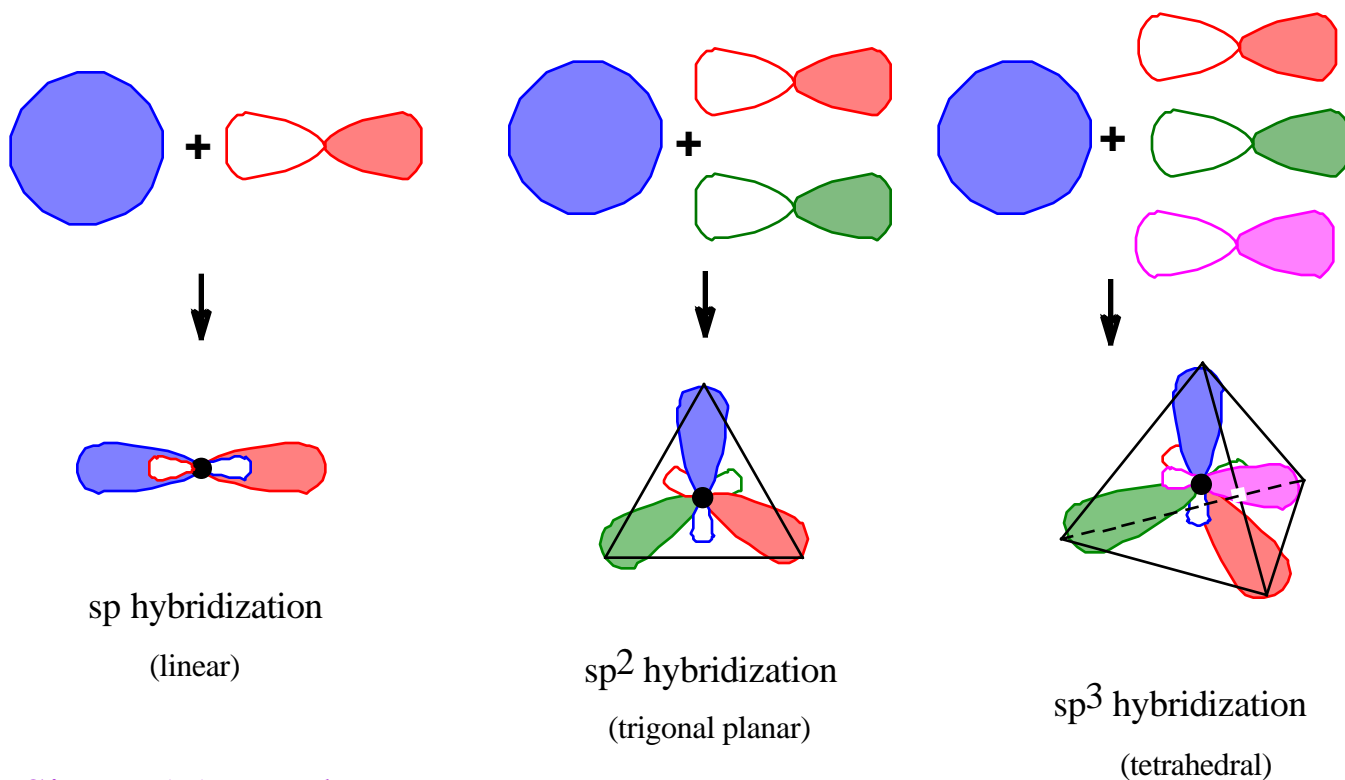
An approximation used to explain bonding and molecular geometry in terms of orbitals containing one electron.

Bonds are described by overlap of two orbitals and the two electrons have opposite spins.

HYBRID ORBITALS

Combination of atomic orbitals during the bonding process to give new, equivalent, hybrid orbitals.

(Unhybridized p orbitals are perpendicular to axis or plane of hybrids.)



Sigma () Bonds

overlap of two orbitals is on axis between the two nuclei



Pi () Bonds

overlap of two orbitals is above and below axis between the two nuclei

