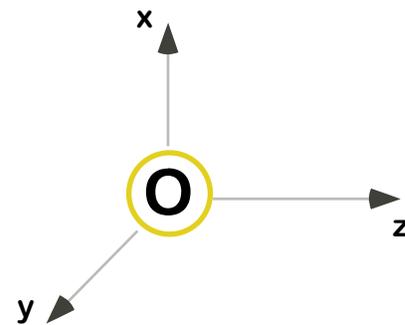


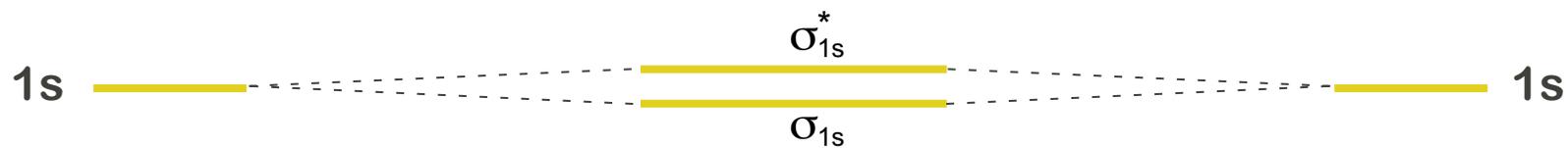
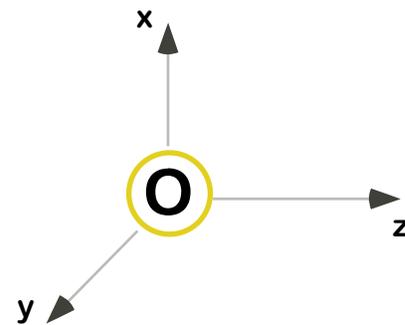
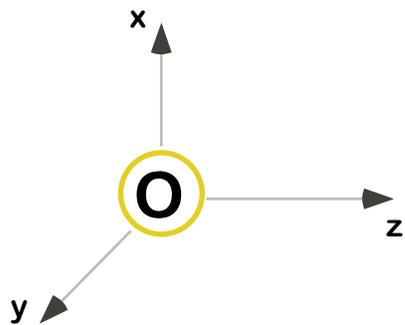
1s ———

Atomic Orbitals



————— 1s

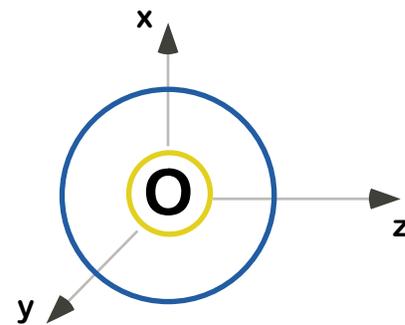
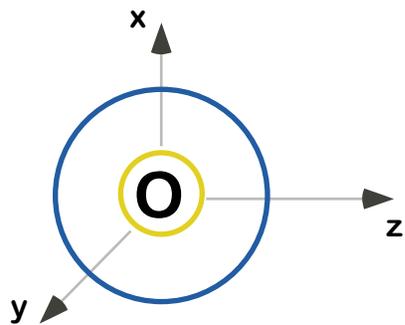
Atomic Orbitals



Atomic Orbitals

Molecular Orbitals

Atomic Orbitals



2s ———

——— 2s

1s ———

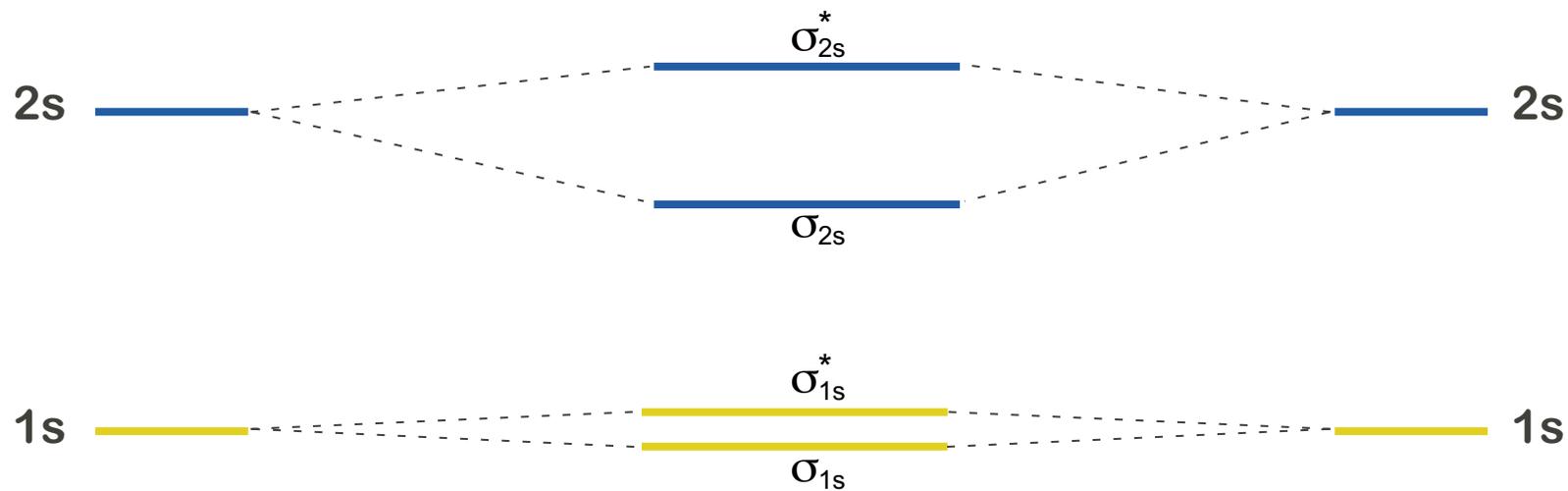
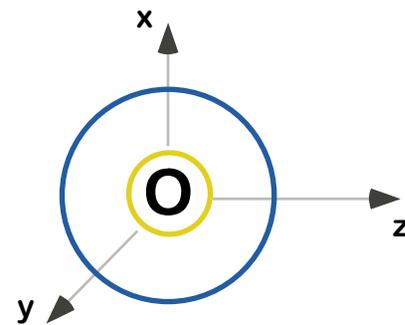
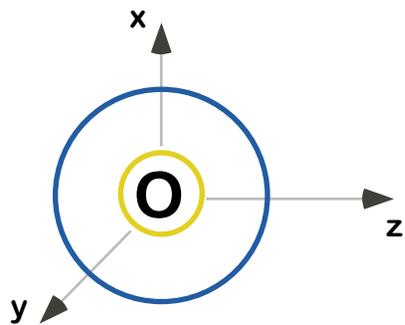
——— 1s

σ_{1s}^*
 ———
 σ_{1s}
 ———

Atomic Orbitals

Molecular Orbitals

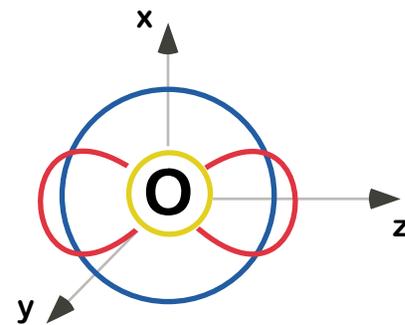
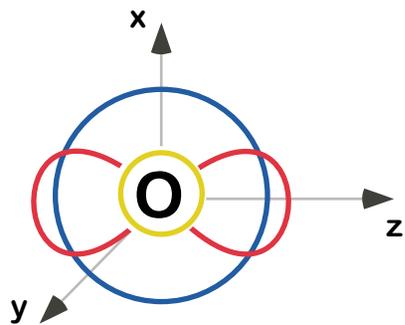
Atomic Orbitals



Atomic Orbitals

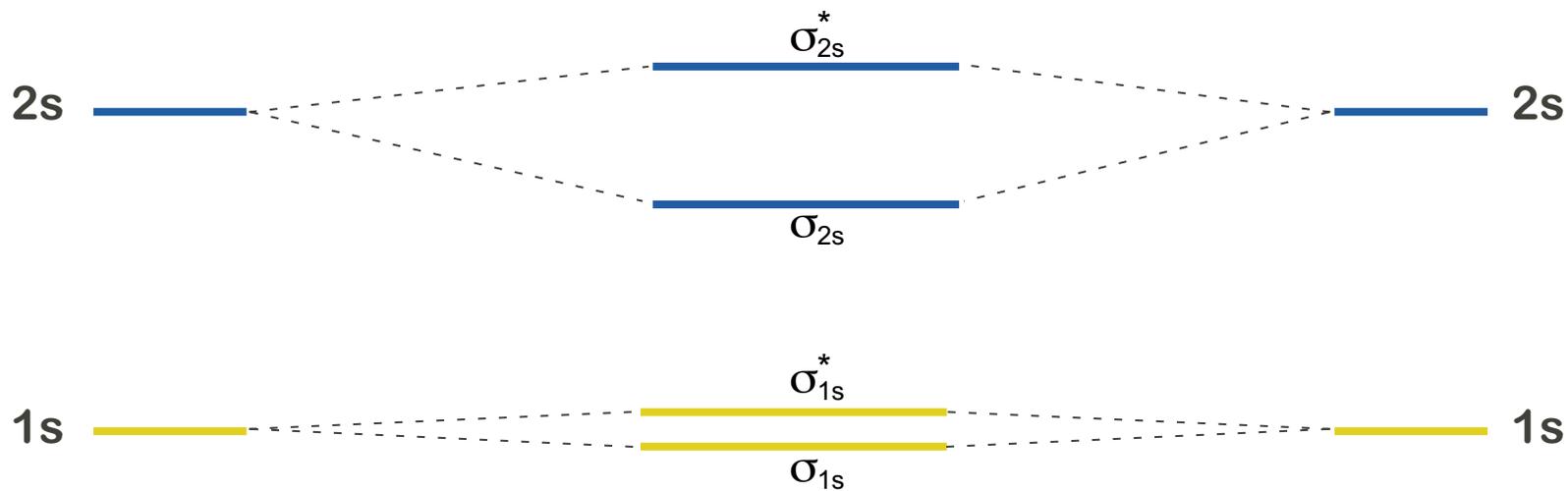
Molecular Orbitals

Atomic Orbitals



2p_z

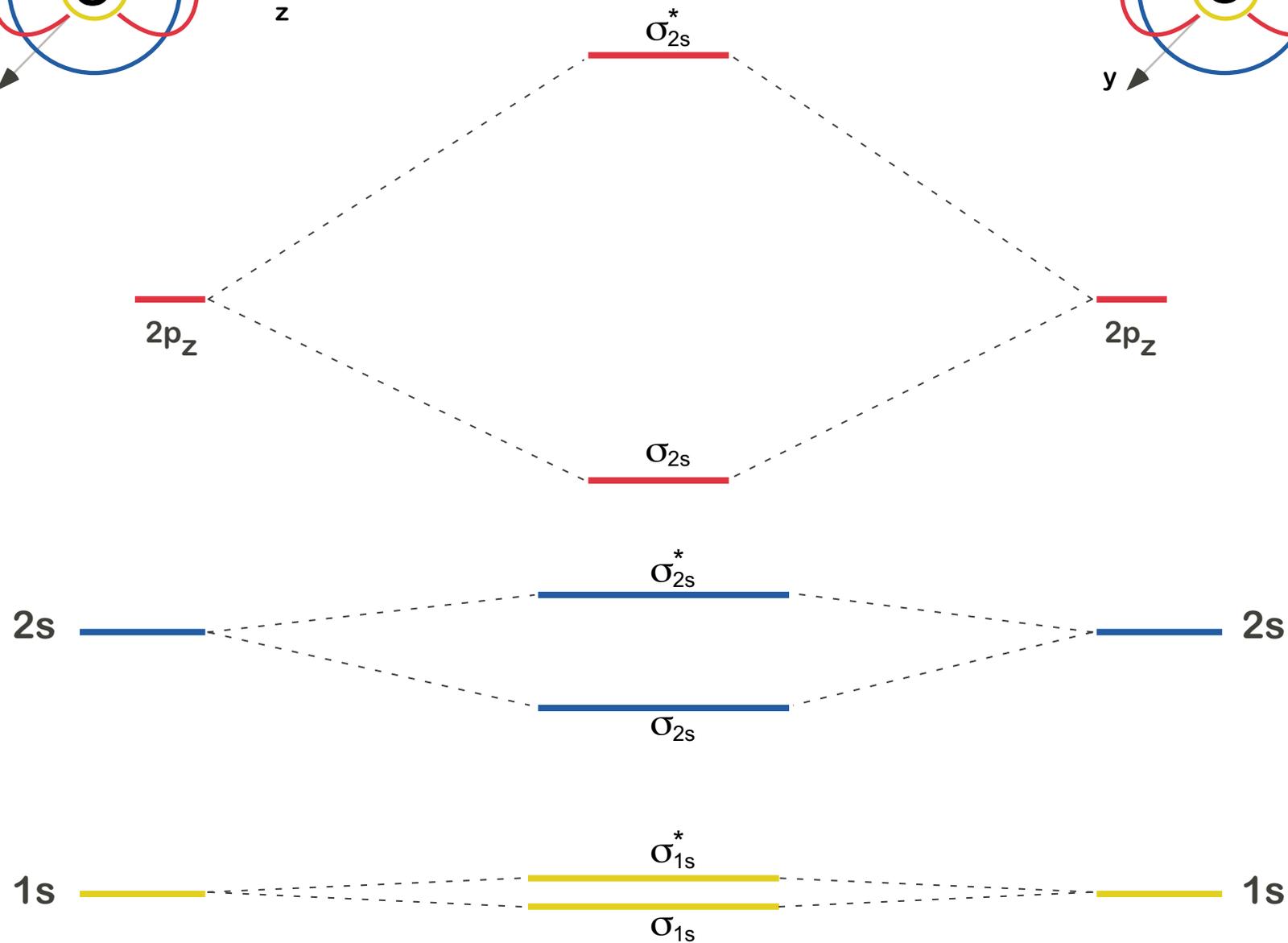
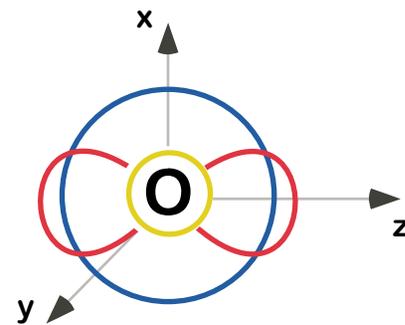
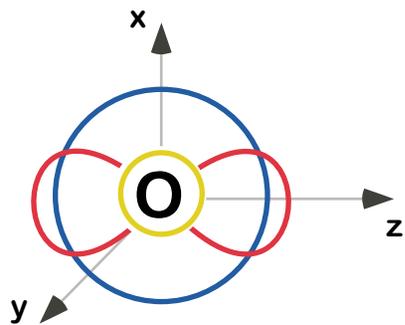
2p_z



Atomic Orbitals

Molecular Orbitals

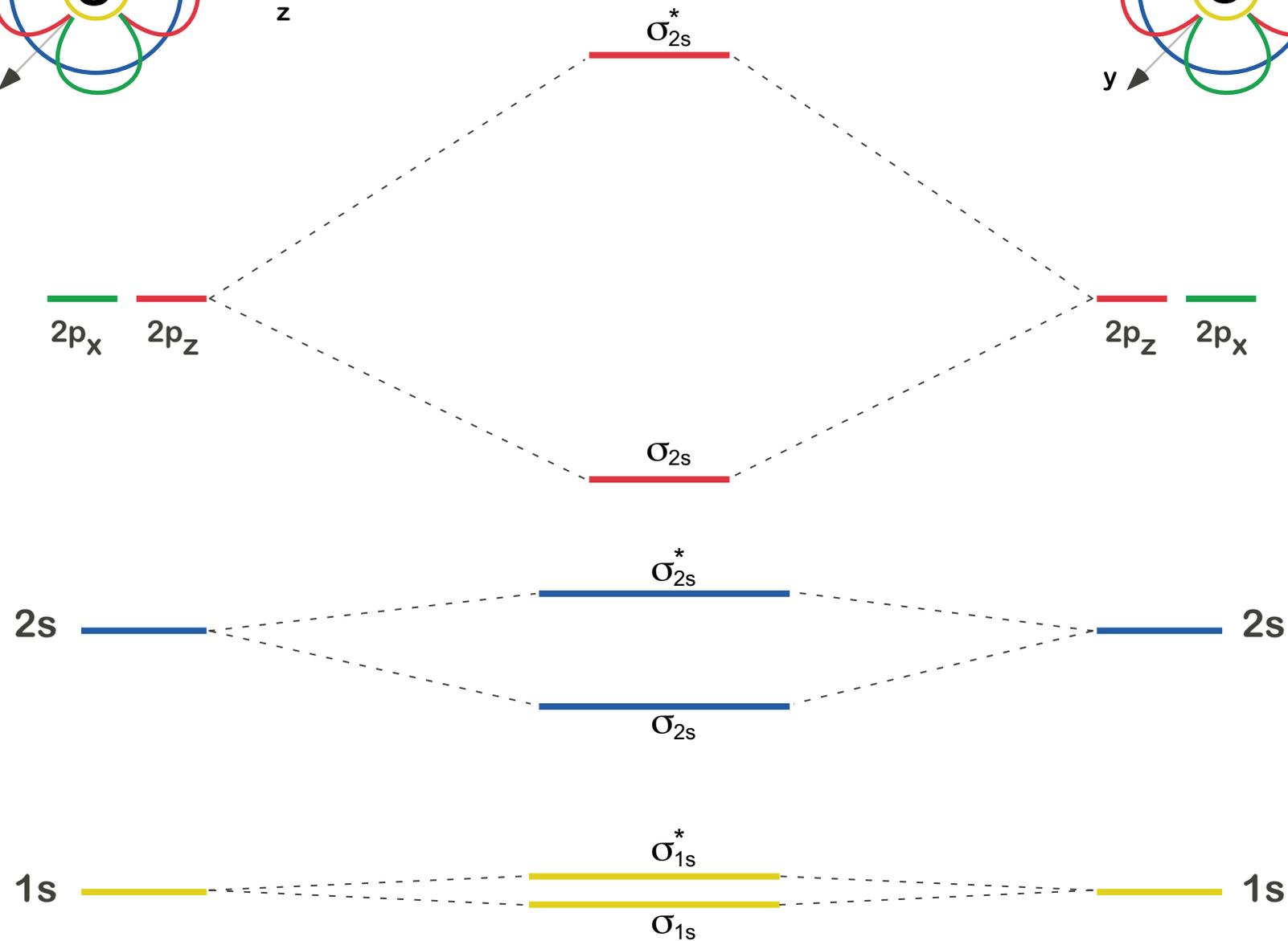
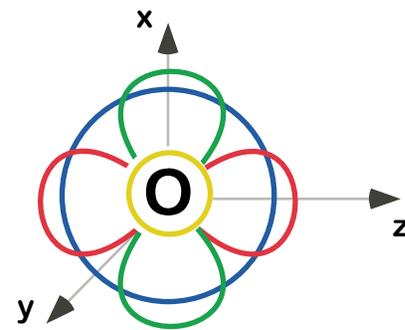
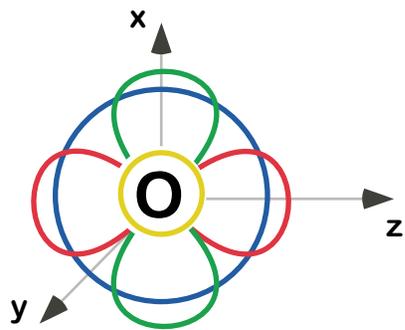
Atomic Orbitals



Atomic Orbitals

Molecular Orbitals

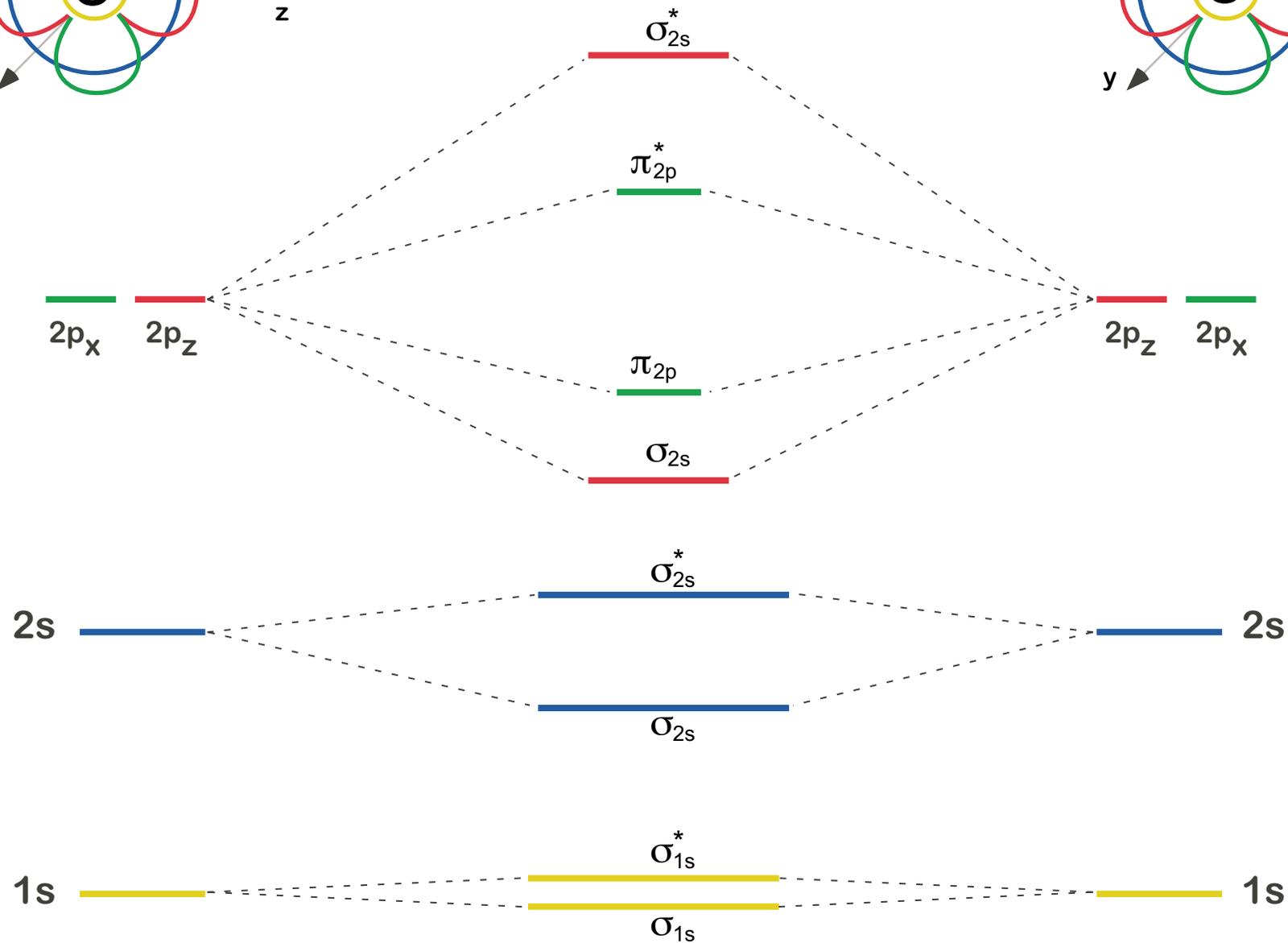
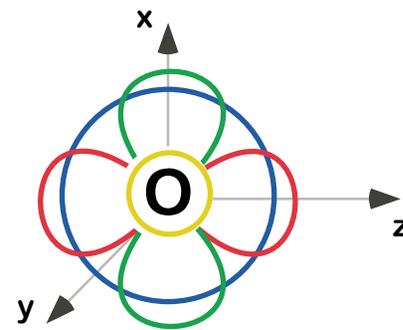
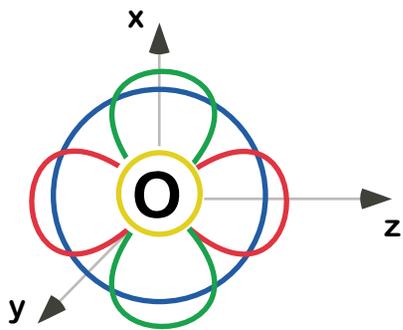
Atomic Orbitals



Atomic Orbitals

Molecular Orbitals

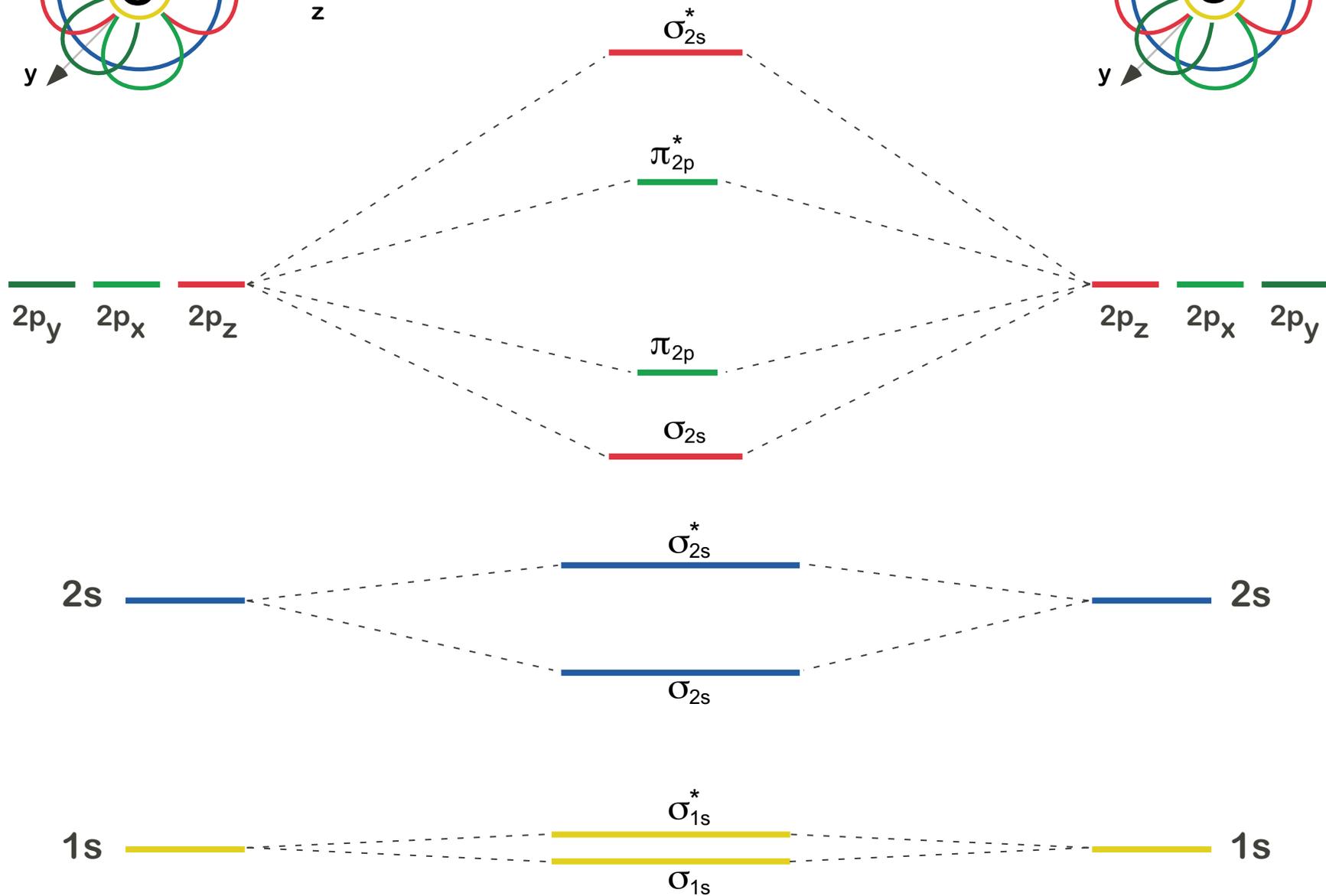
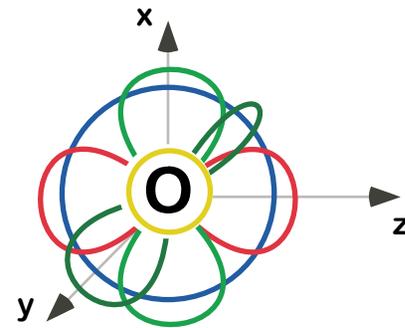
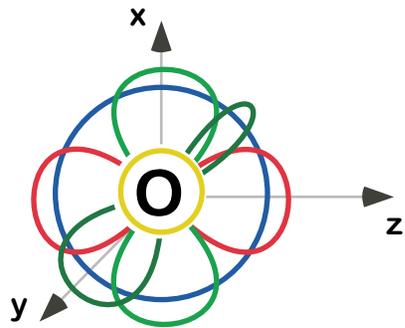
Atomic Orbitals



Atomic Orbitals

Molecular Orbitals

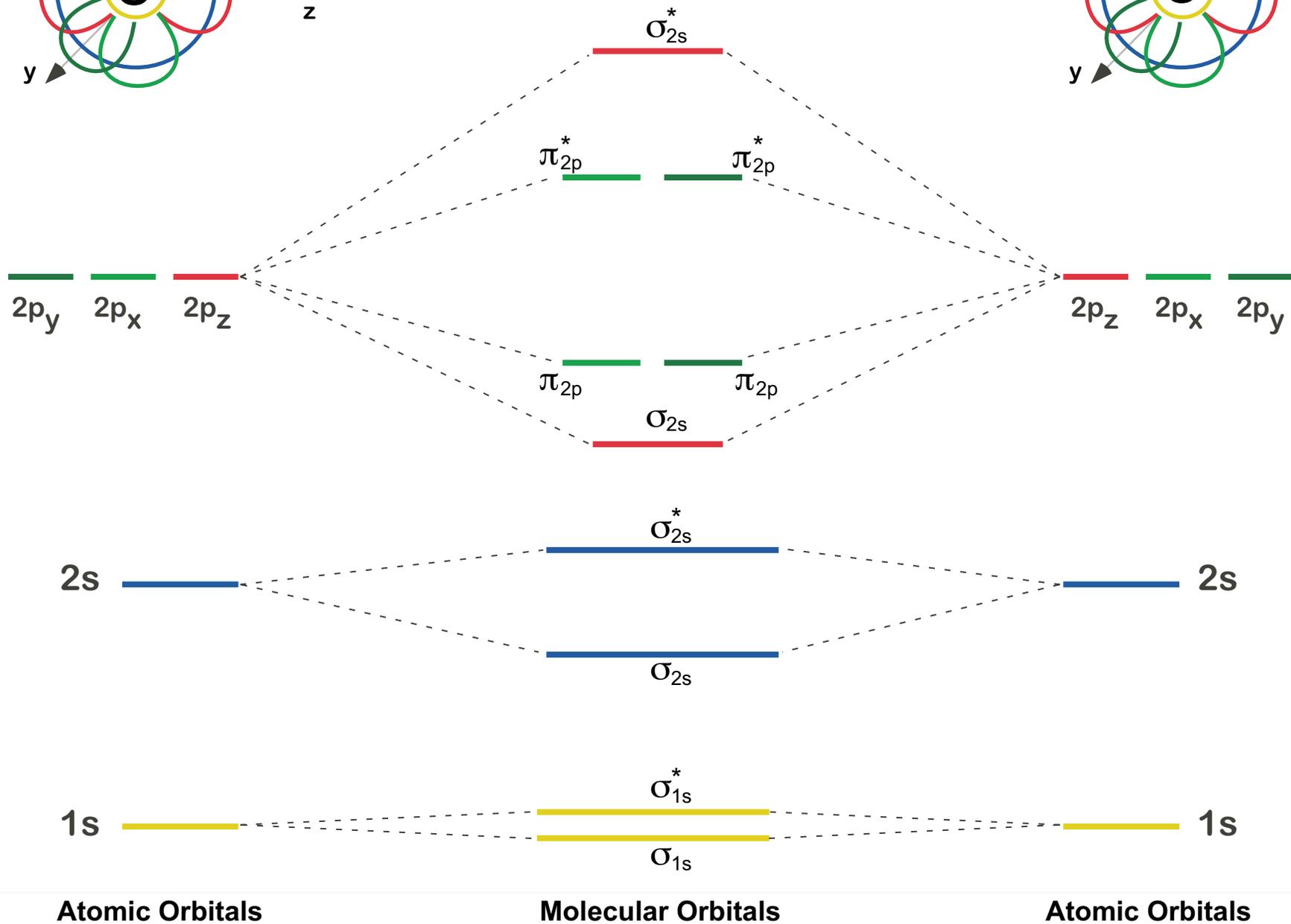
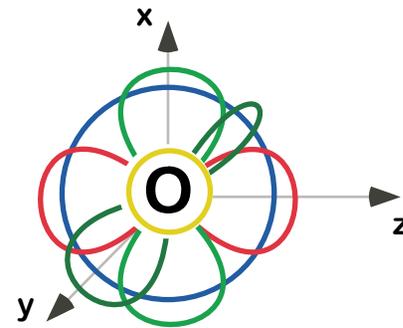
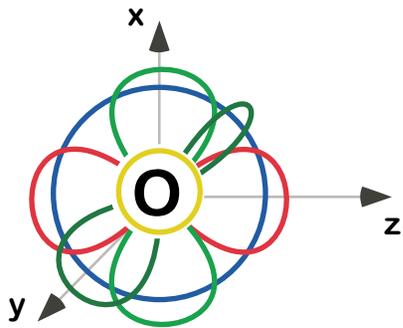
Atomic Orbitals

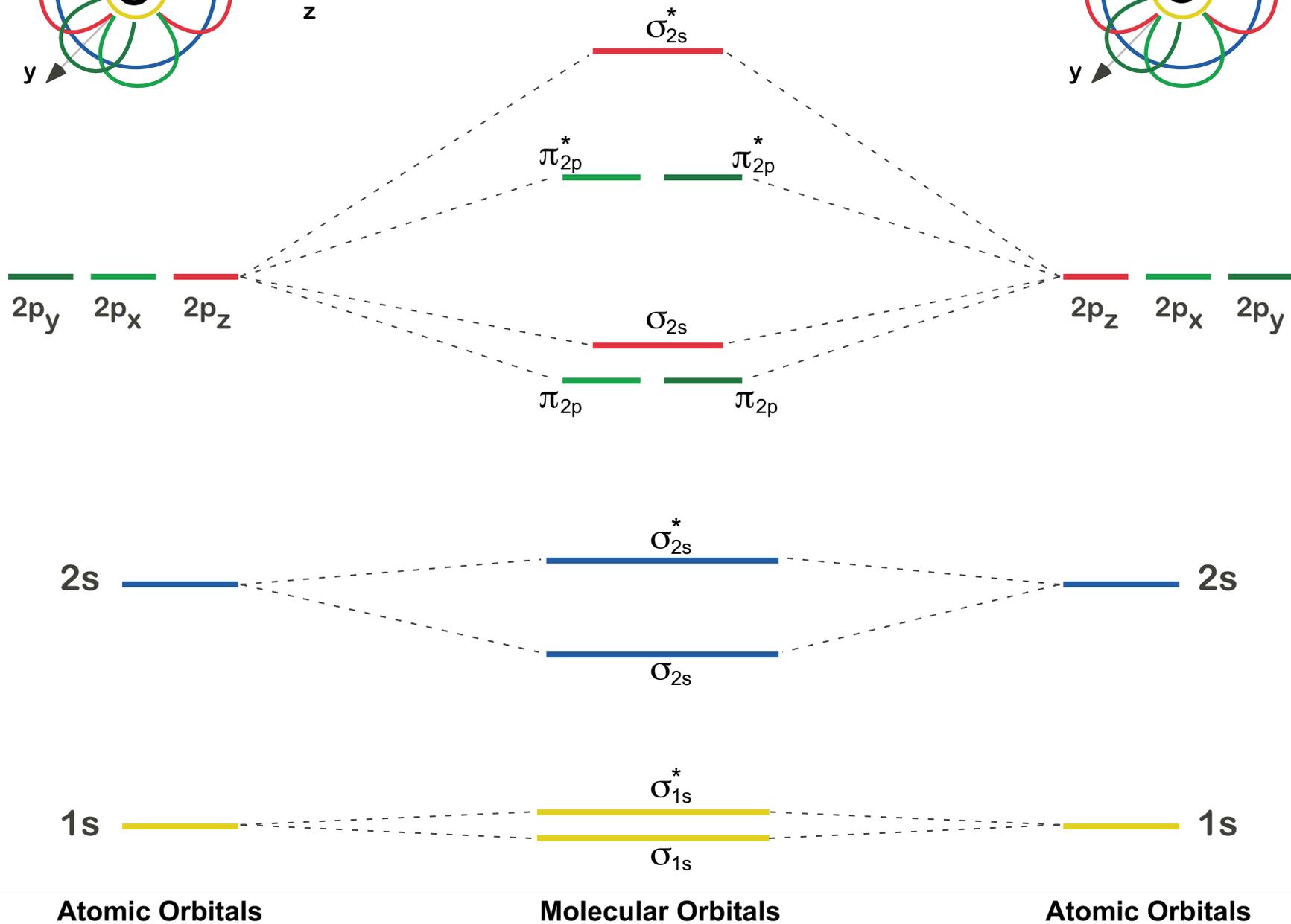
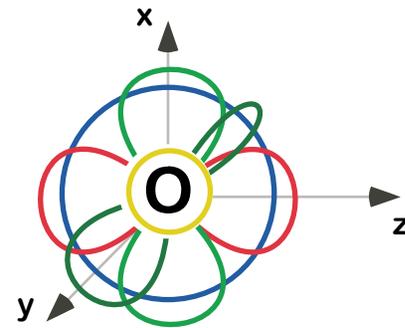
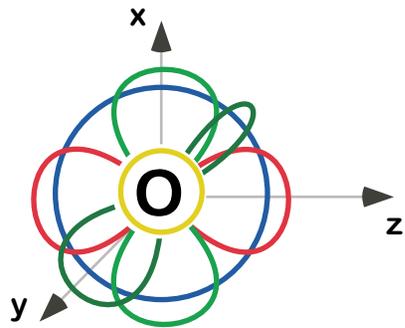


Atomic Orbitals

Molecular Orbitals

Atomic Orbitals

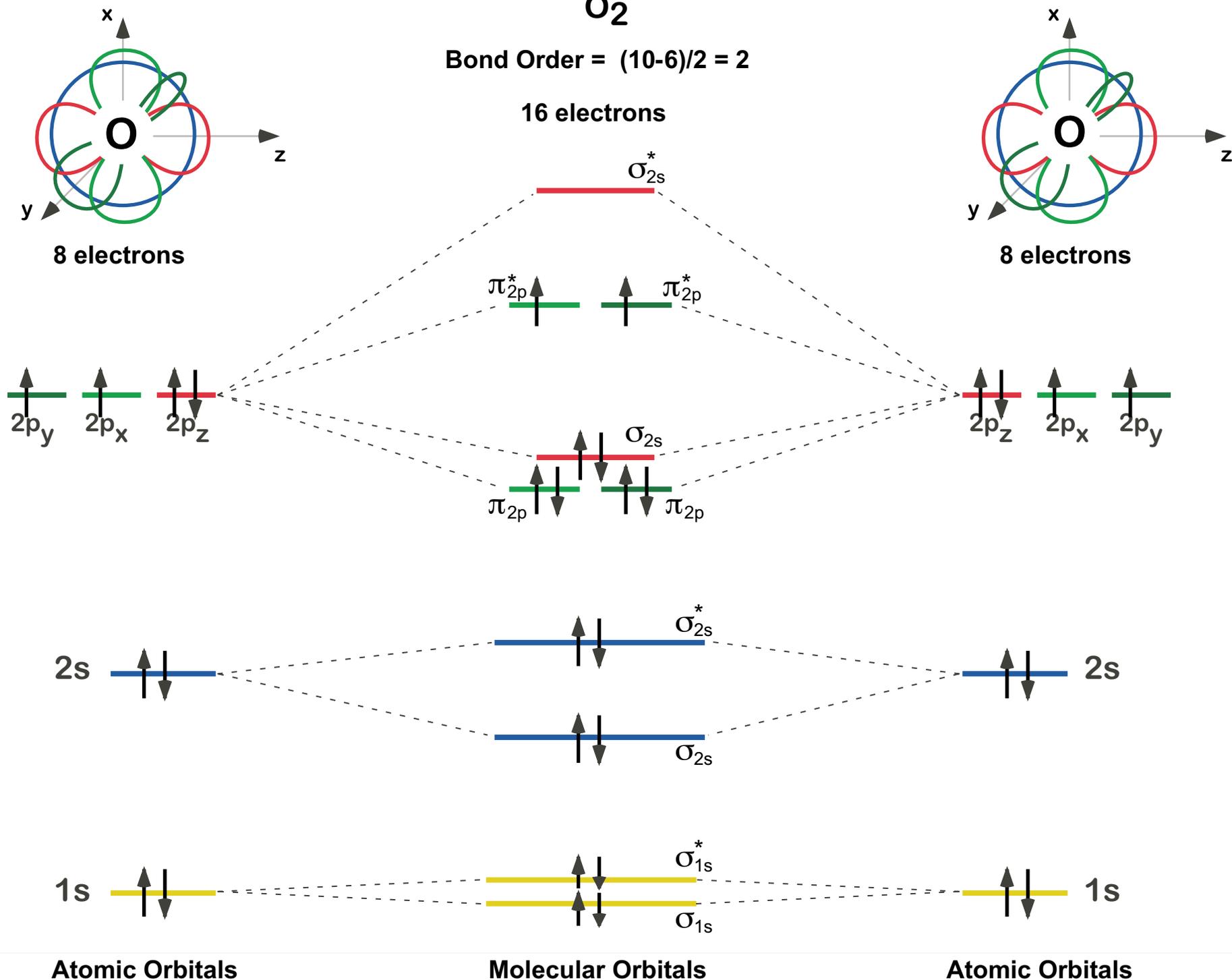






Bond Order = (10-6)/2 = 2

16 electrons



8 electrons

8 electrons

Atomic Orbitals

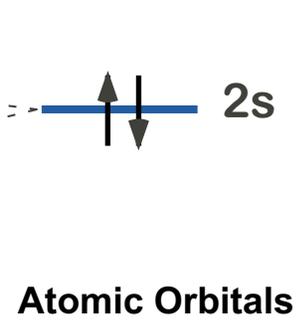
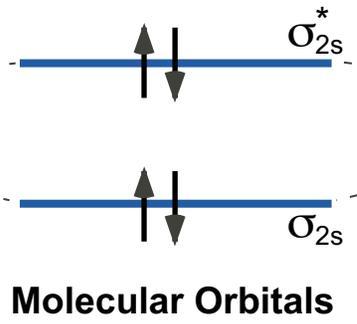
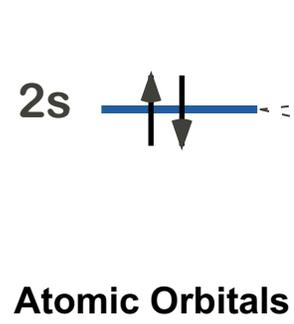
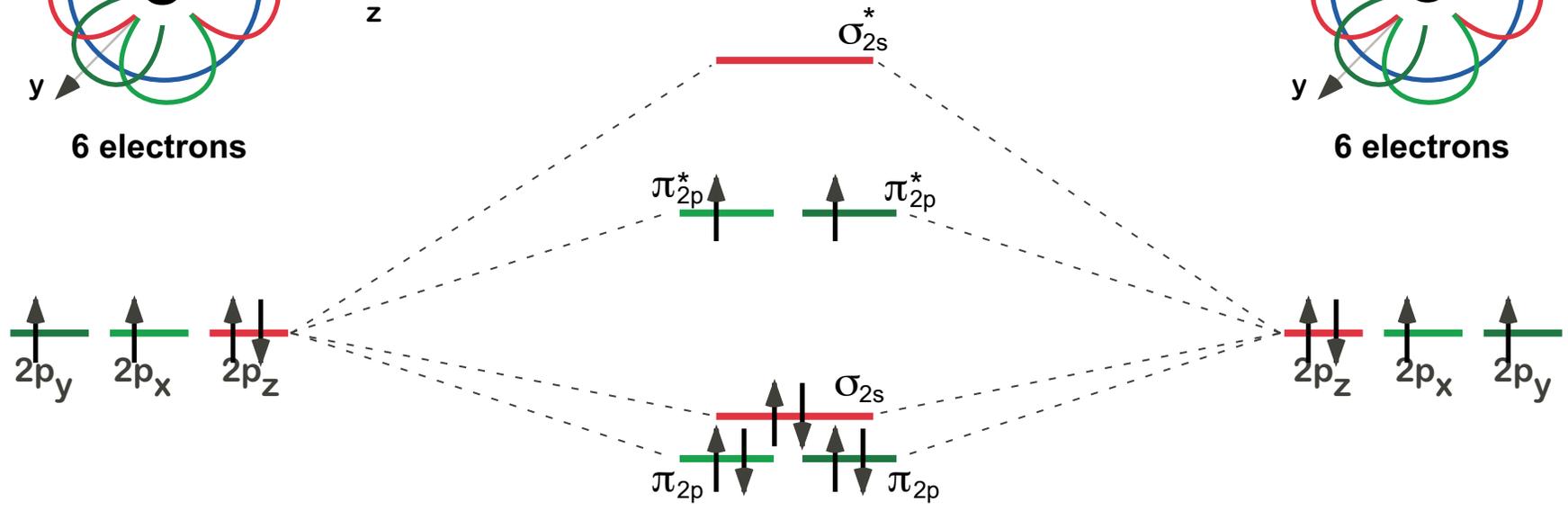
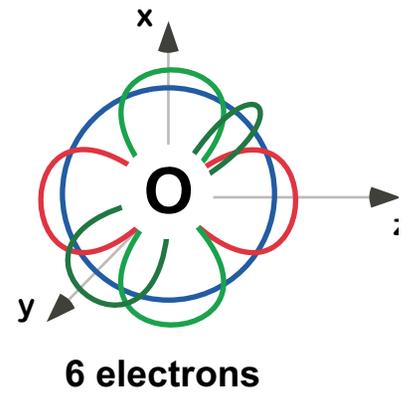
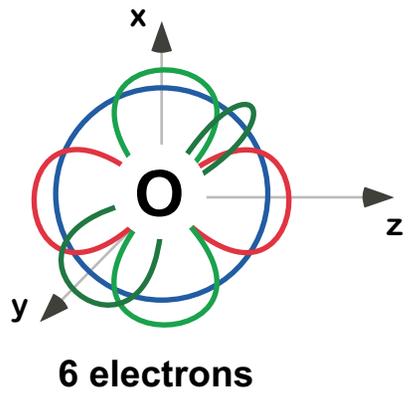
Molecular Orbitals

Atomic Orbitals

O₂

Bond Order = $(8-4)/2 = 2$

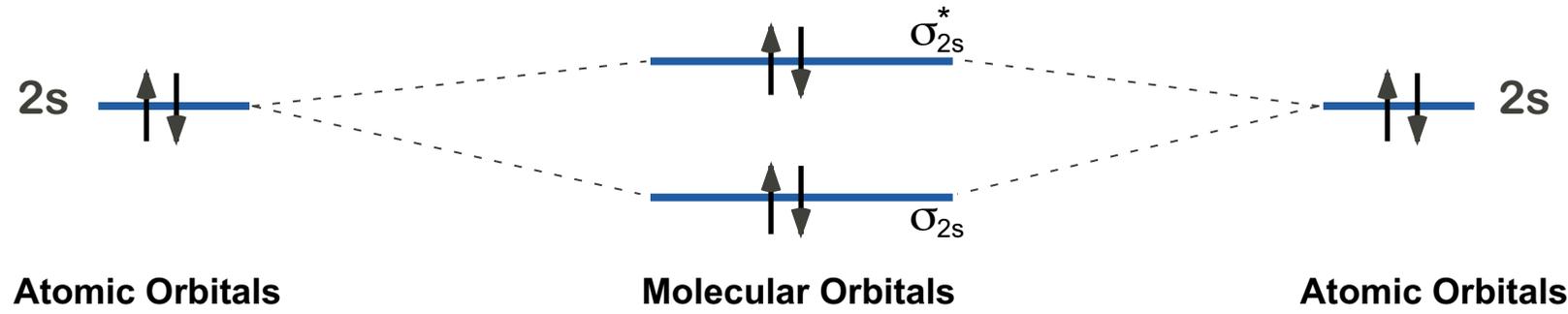
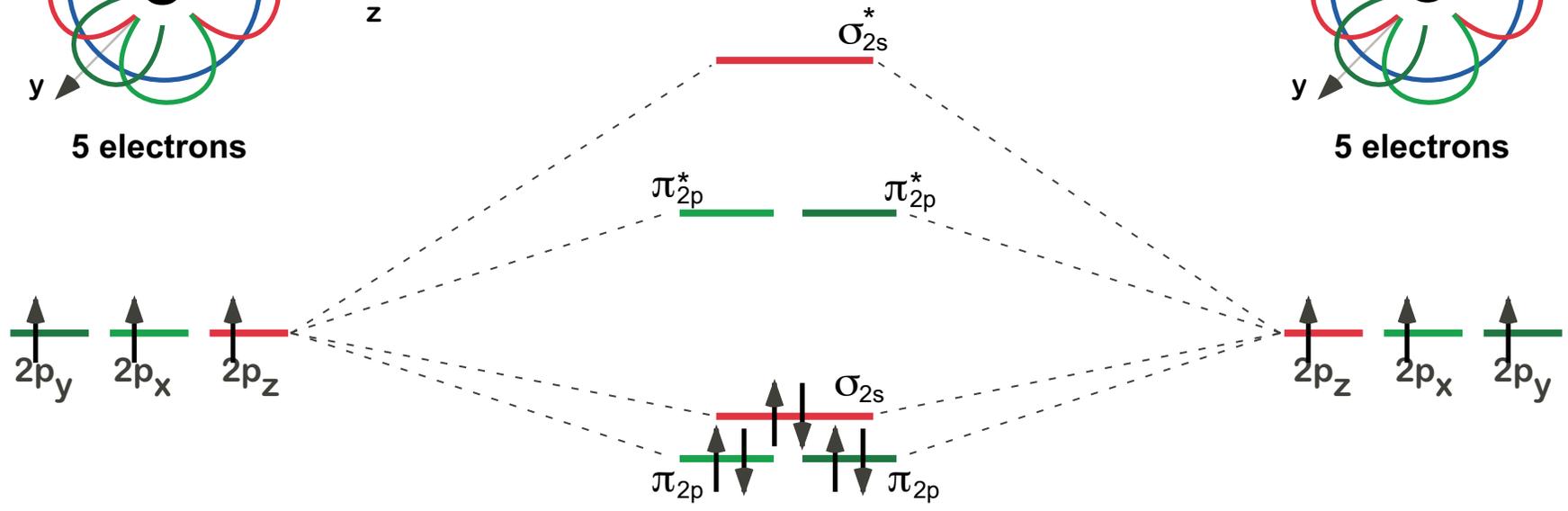
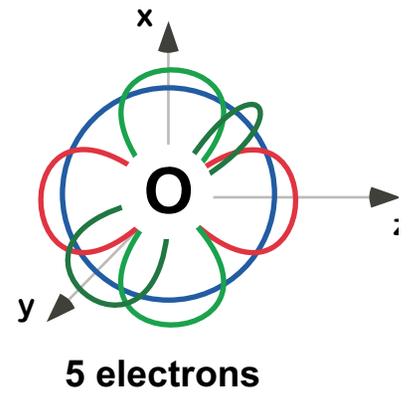
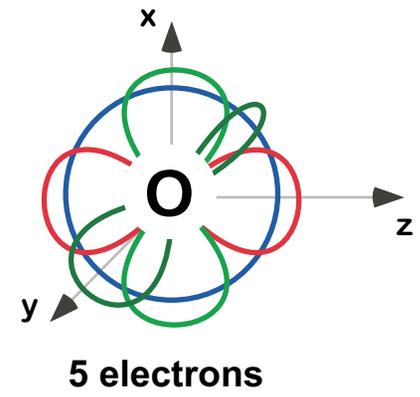
12 electrons



N₂

Bond Order = $(8-2)/2 = 3$

10 electrons



Atomic Orbitals

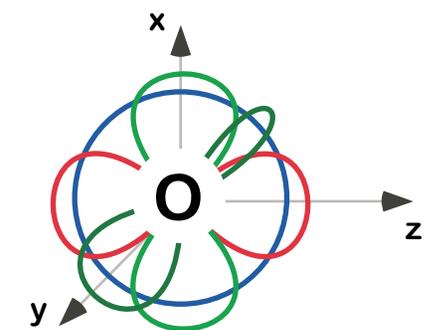
Molecular Orbitals

Atomic Orbitals

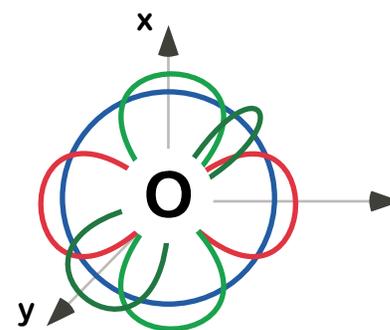
F₂

$$\text{Bond Order} = (8-6)/2 = 1$$

14 electrons



7 electrons



7 electrons

