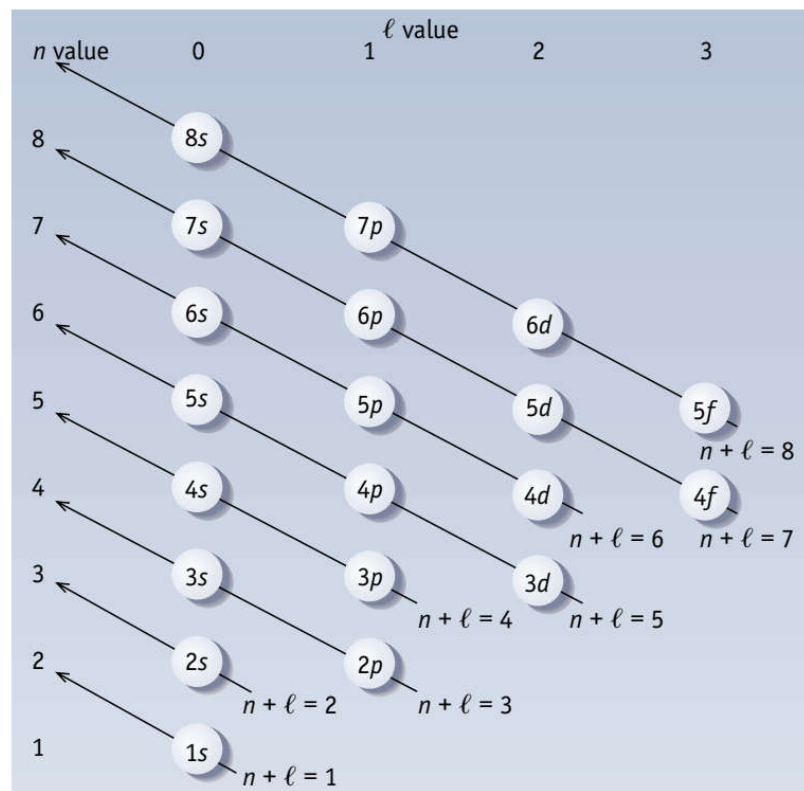
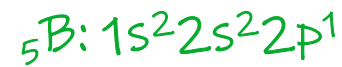
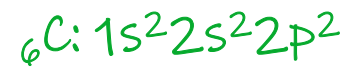
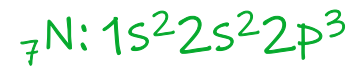
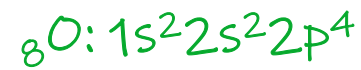
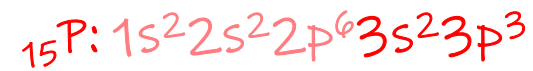
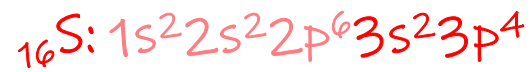
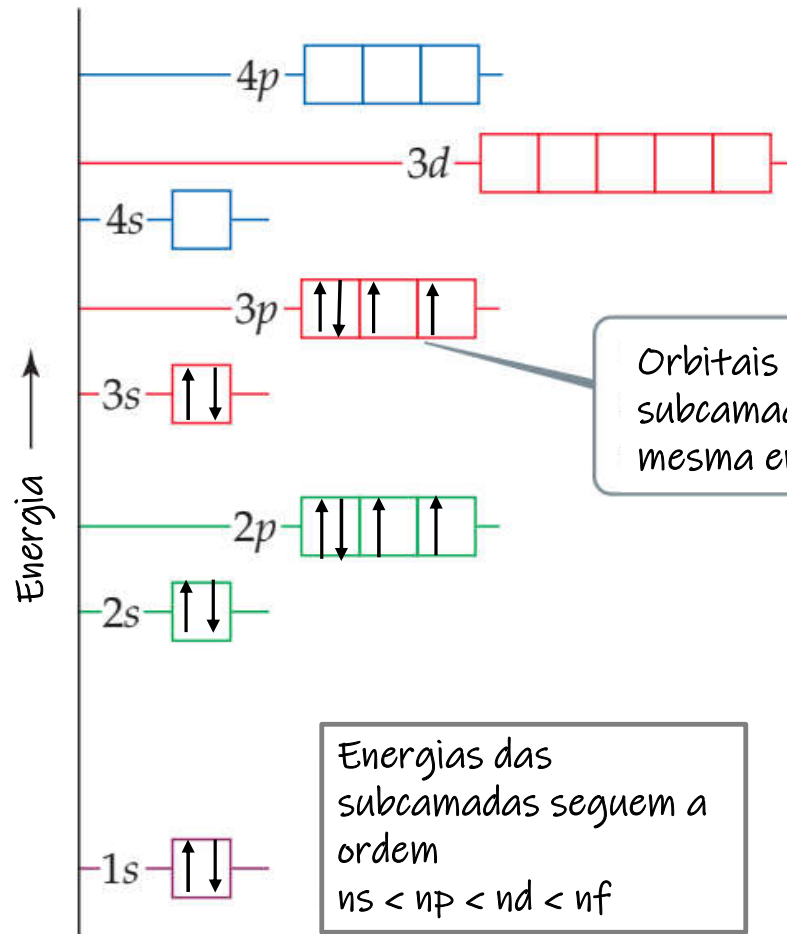
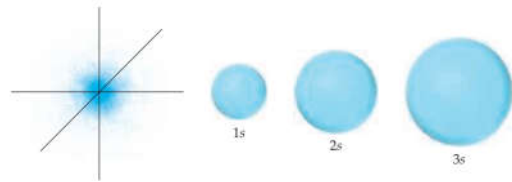


Aula 5 QE

Elétrons, Níveis de Energia e Subníveis de Energia (Orbitais)

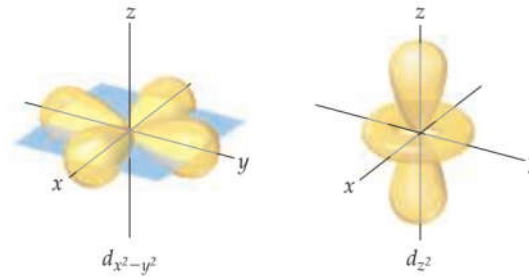
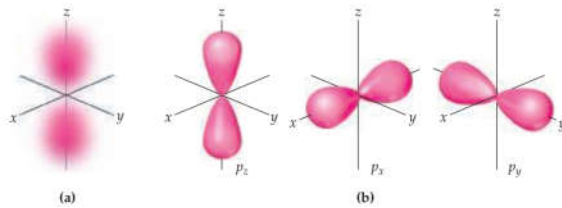
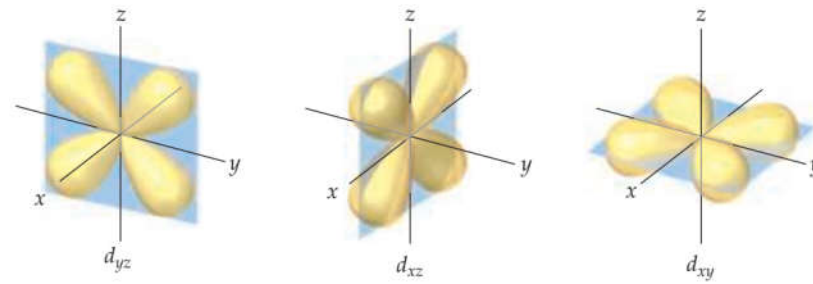




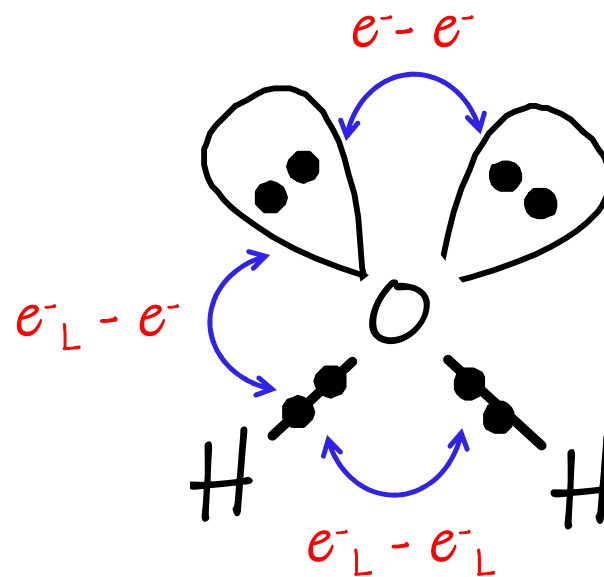
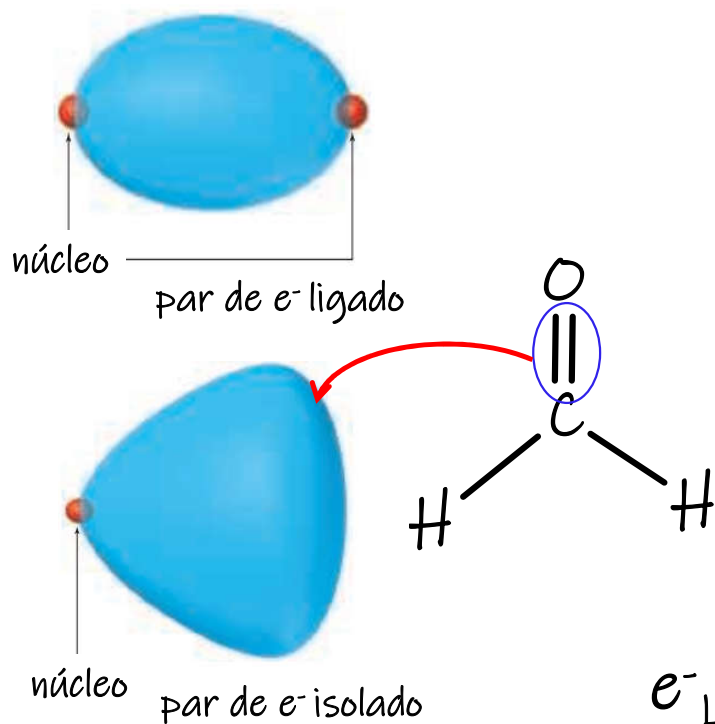


Distribuição
da densidade
eletrônica

Contorno



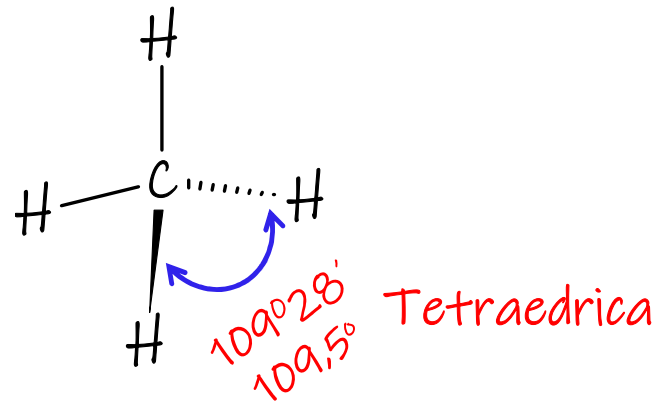
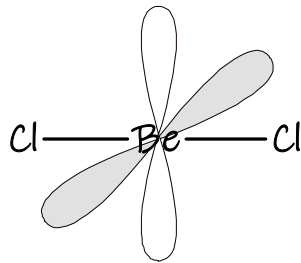
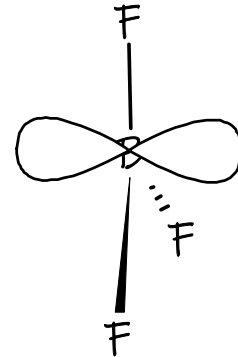
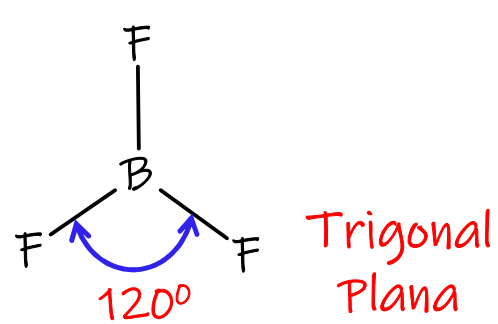
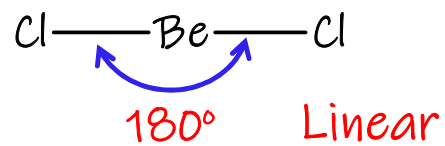
Teoria da Repulsão eletrônica da camada de valência (TRECIV)



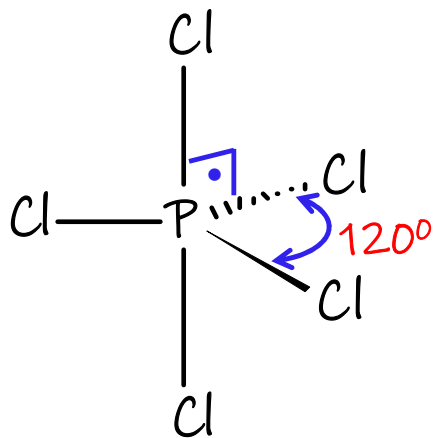
$$e^-_L - e^-_L < e^-_L - e^- < e^- - e^-$$

(TRECIV) e Geometria Molecular

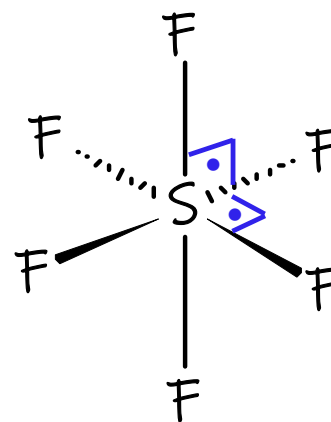
$4\text{Be}: 1s^2 2s^2$



(TRECIV) e Geometria Molecular

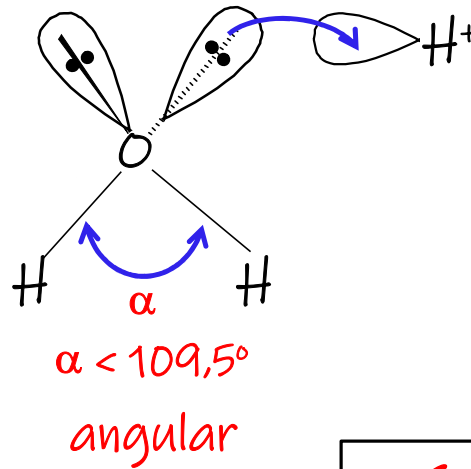
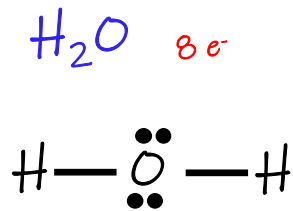


Bipiramidal
Trigonal

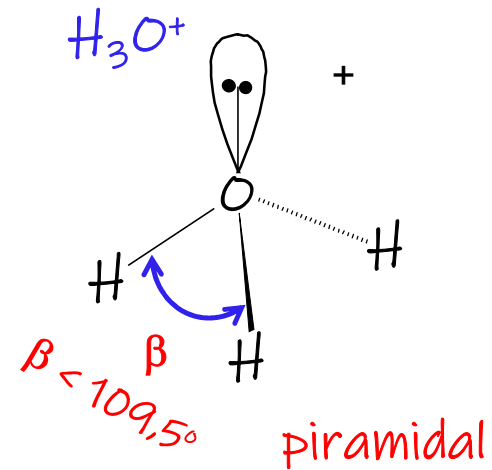


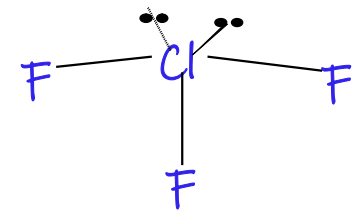
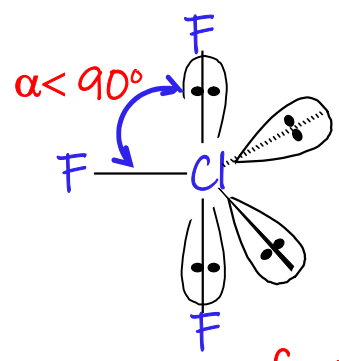
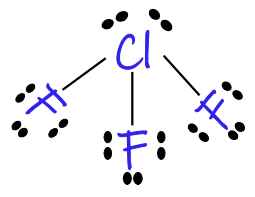
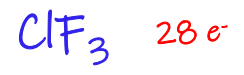
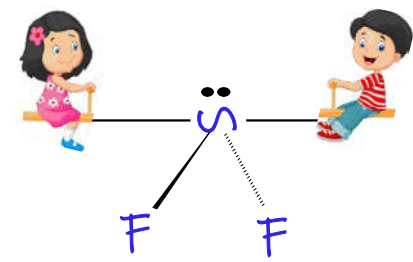
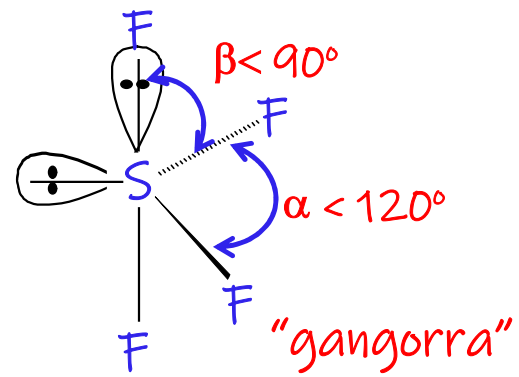
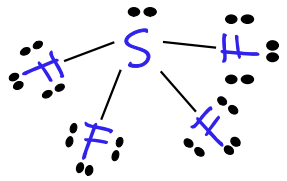
Octaedro

(TRECIV) e Geometria Molecular

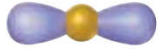

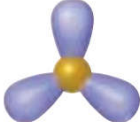
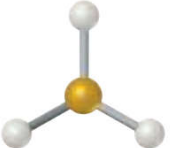
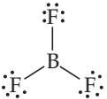
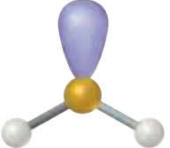
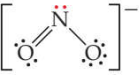
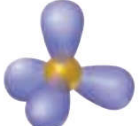
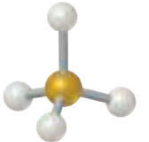
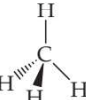
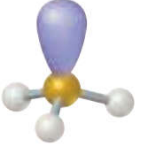

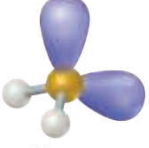



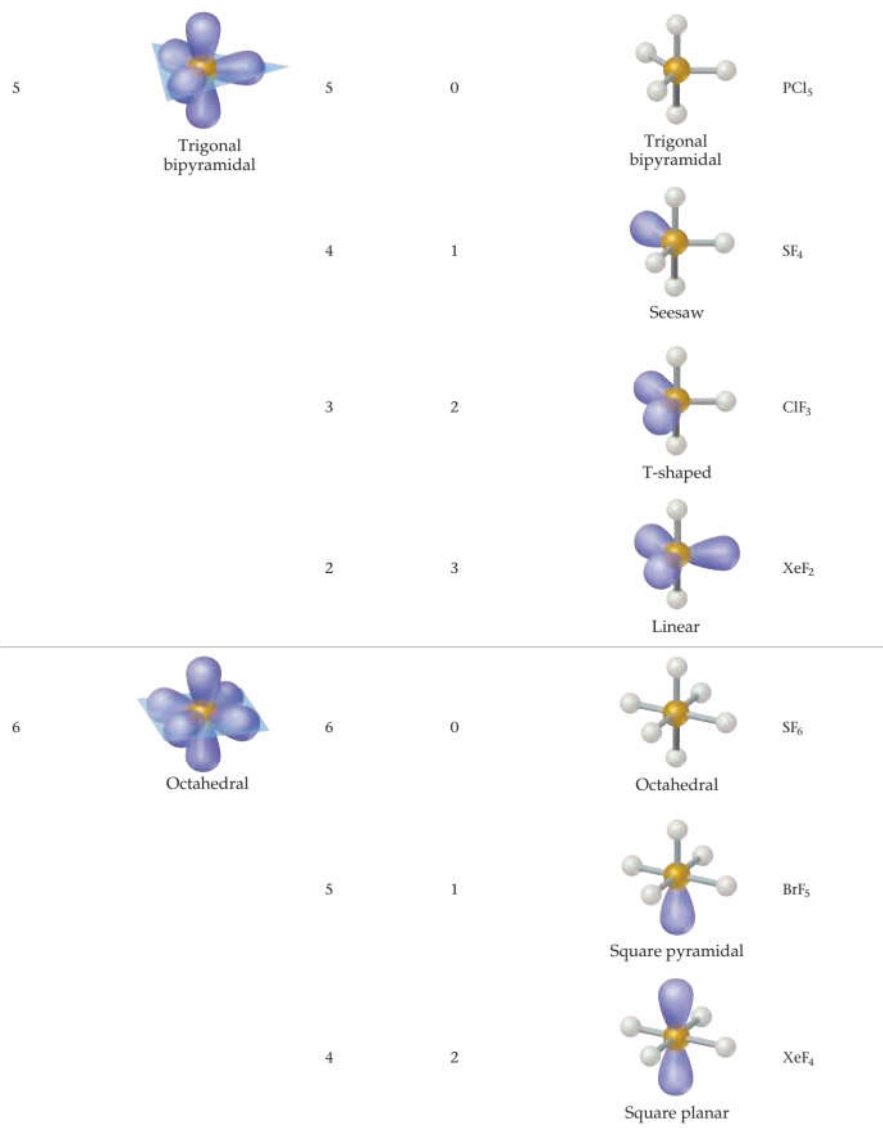
$$\alpha < \beta$$





forma de "T"

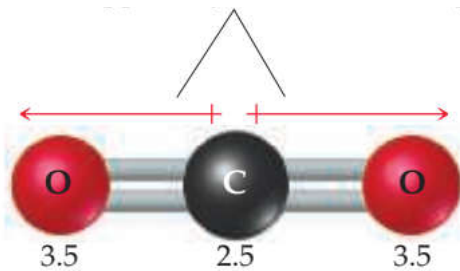
2	 <p>Linear</p>	2	0	 <p>Linear</p>	$\ddot{\text{O}}=\text{C}=\ddot{\text{O}}$
3	 <p>Trigonal planar</p>	3	0	 <p>Trigonal planar</p>	
		2	1	 <p>Bent</p>	
4	 <p>Tetrahedral</p>	4	0	 <p>Tetrahedral</p>	
		3	1	 <p>Trigonal pyramidal</p>	
		2	2	 <p>Bent</p>	



Geometria Molecular e Polaridade

Dipolo da ligação CO em direção oposta

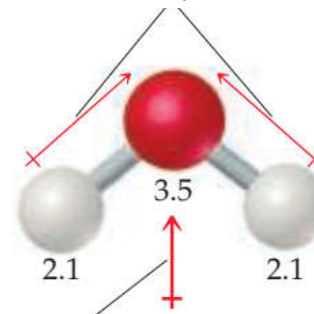
Ângulo 180°



Momento dipolo resultante = 0

Molécula Apolar

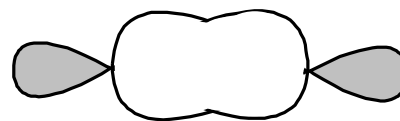
dipolo da ligação OH



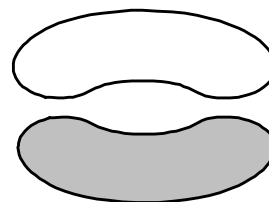
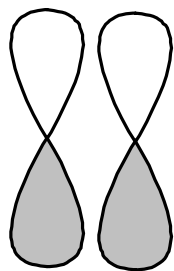
Momento dipolo resultante > 0

Molécula polar

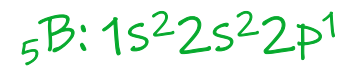
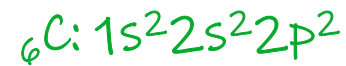
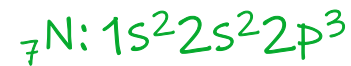
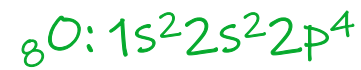
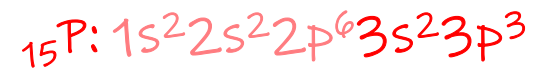
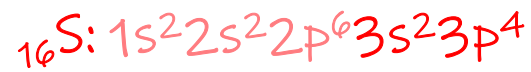
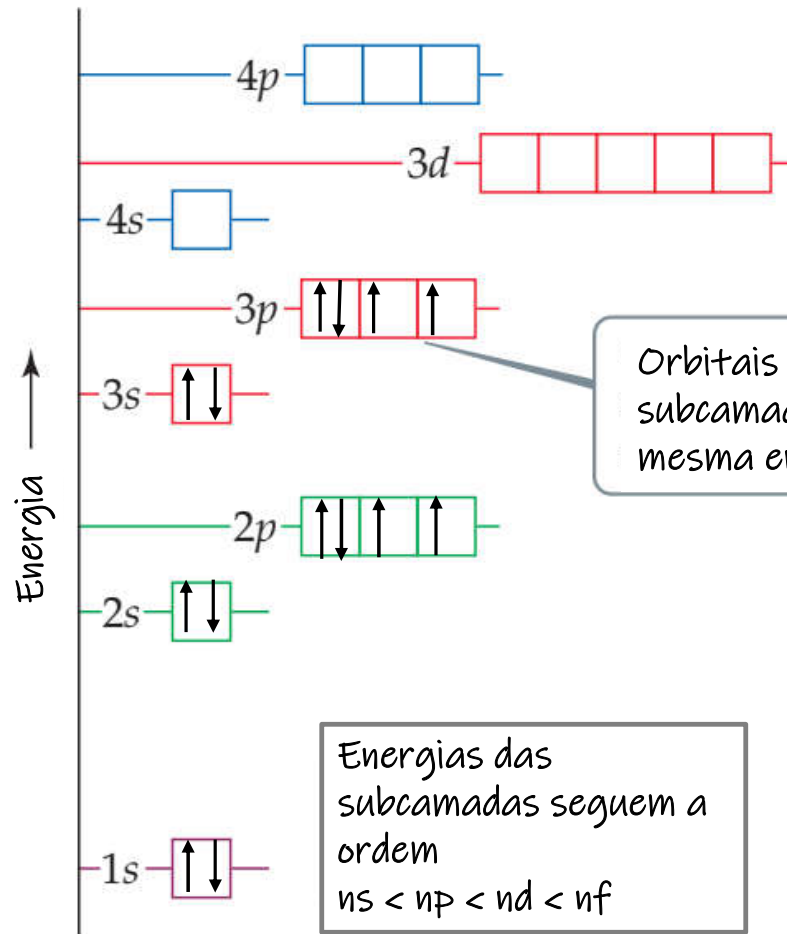
Ligação e Orbitais σ e π



Ligação σ

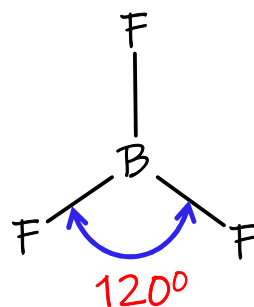
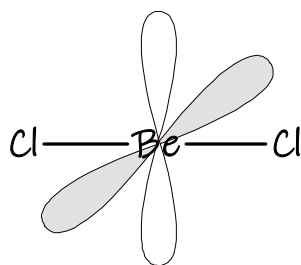
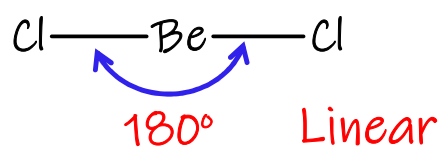


Ligação π

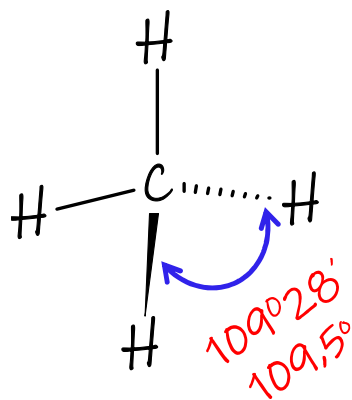
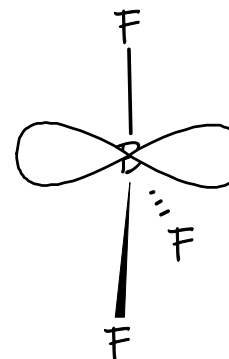


(TRECIV) e Geometria Molecular

$4\text{Be}: 1s^2 2s^2$



Trigonal Plana



Hibridização