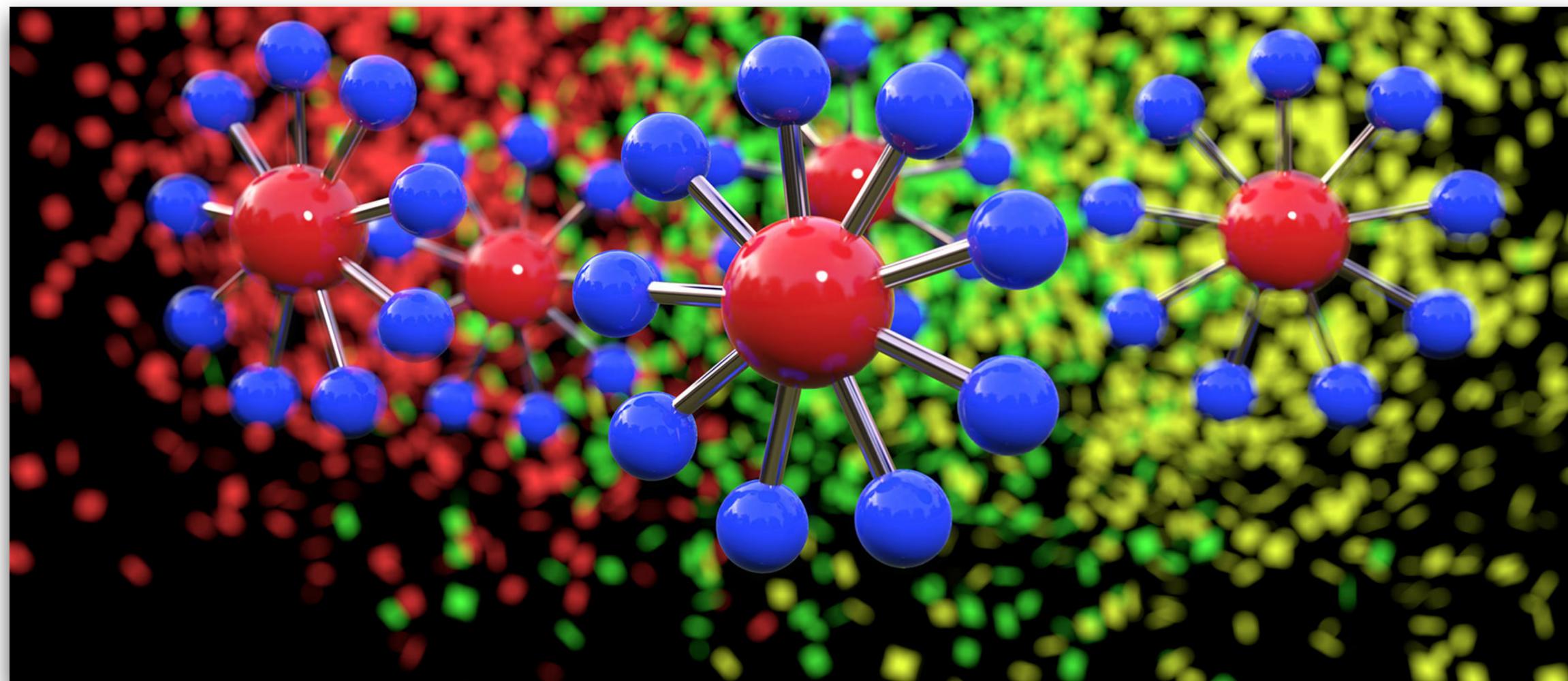


Geometria Molecular

alexquimica.com

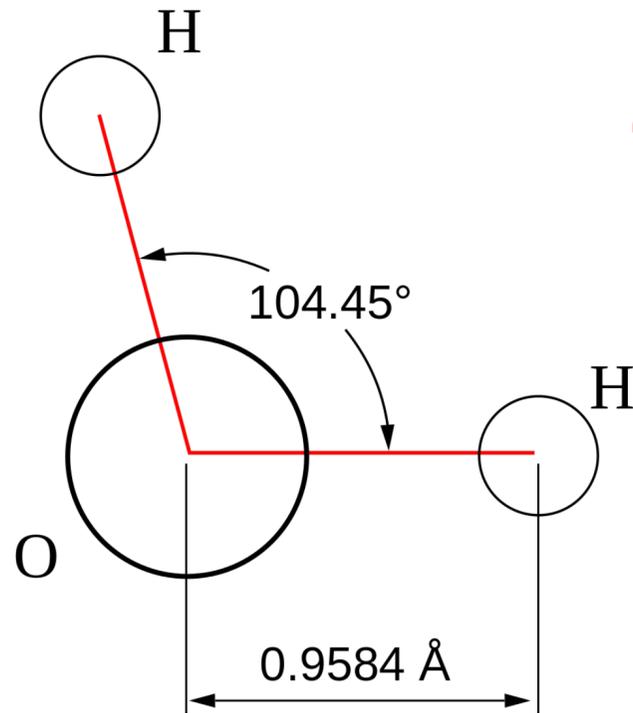


acesse o canal



Prof: Alex

Geometria Molecular



É definida como a forma como os átomos estão espacialmente dispostos na molécula.

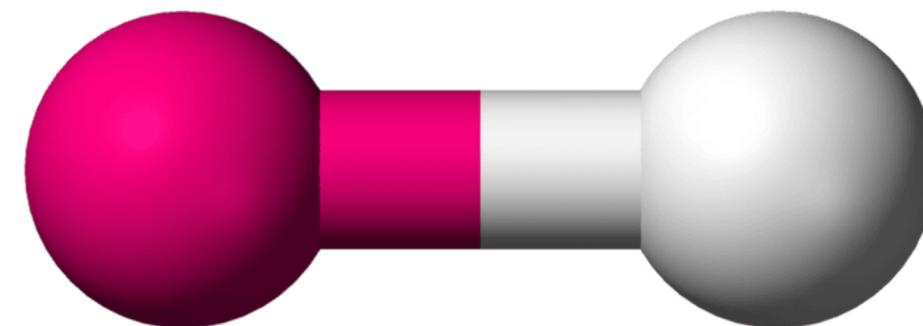
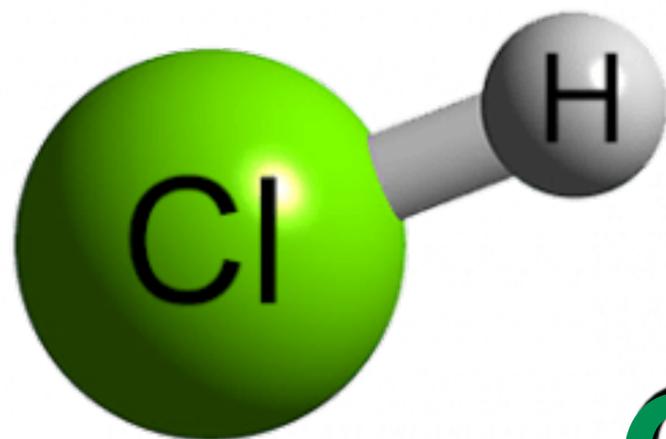
A geometria será definida pela repulsão dos pares eletrônicos na camada de valência (**VSEPR, em inglês**), que considera o ângulo tridimensional máximo de afastamento possível entre os ligantes, também chamado ângulo de **diedro**.

Técnicas como espectroscopia e difração de raios X são utilizadas para a determinação experimental de ângulos de ligação.



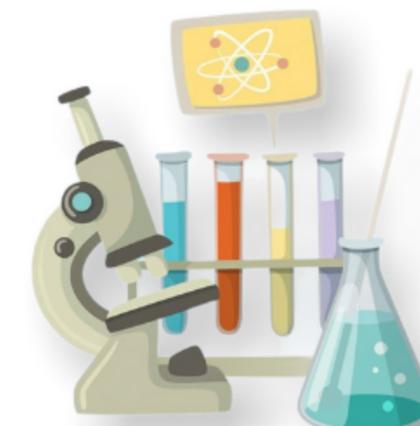
HCl

Cloro de hidrogênio



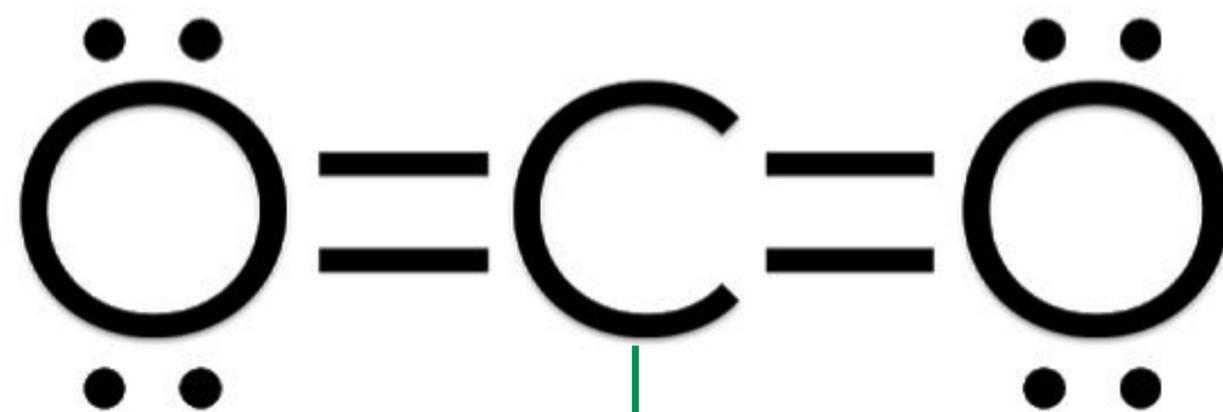
Geometria linear
(180°)

"Toda molécula biatômica é linear"

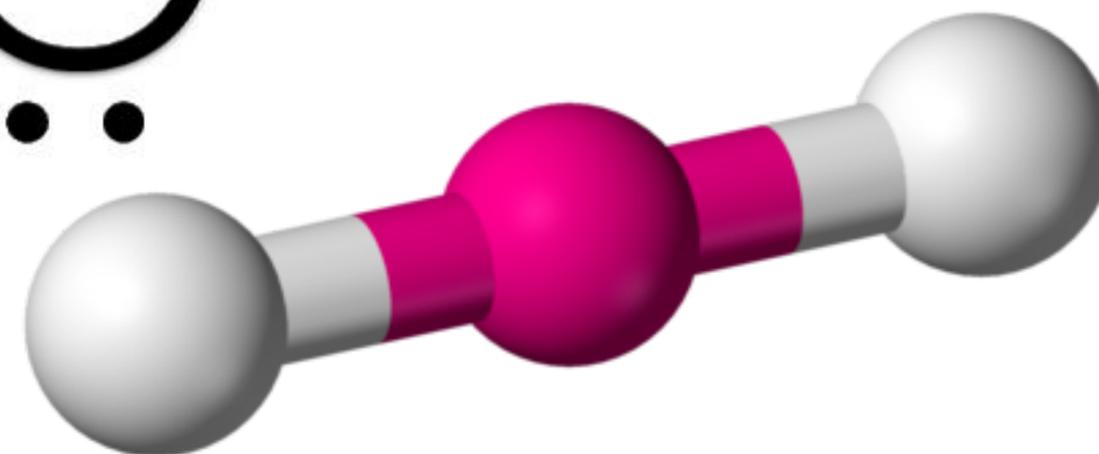
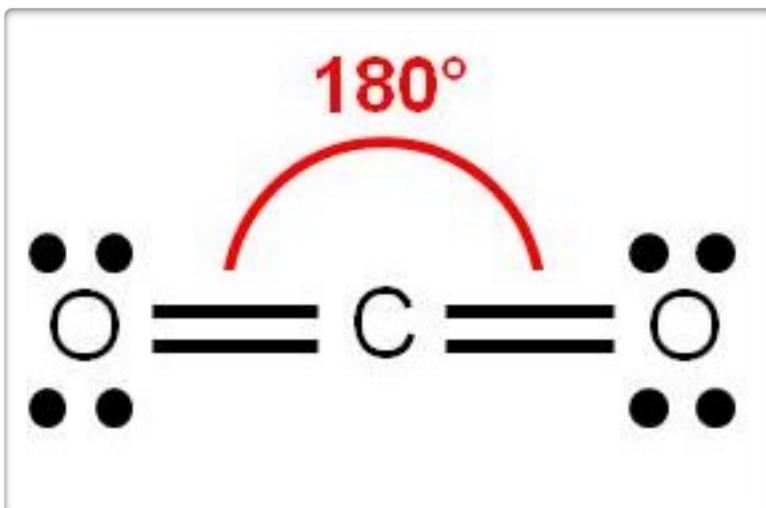


CO_2

Dióxido de carbono



sp



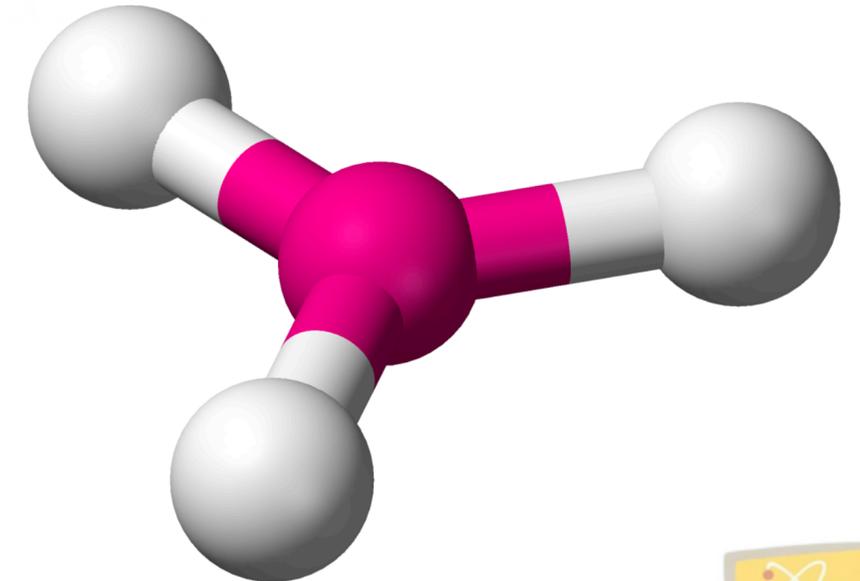
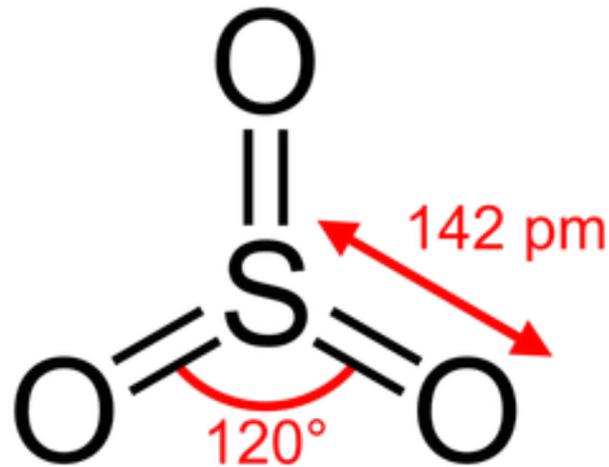
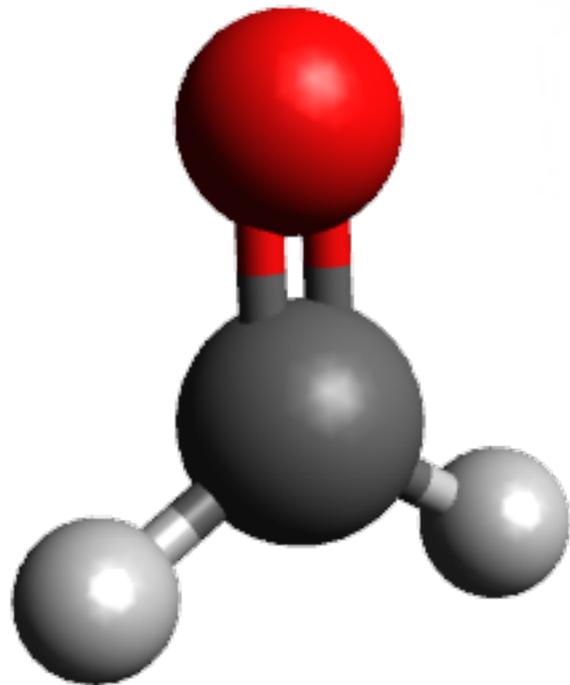
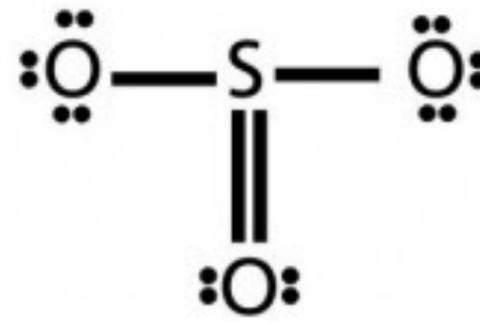
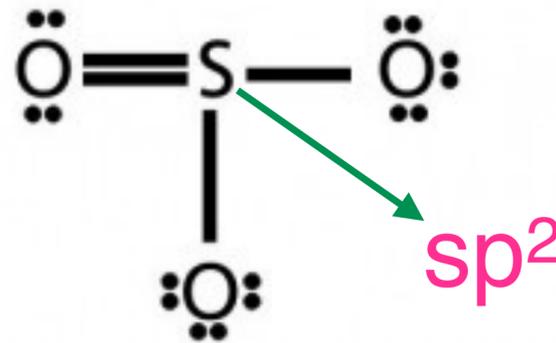
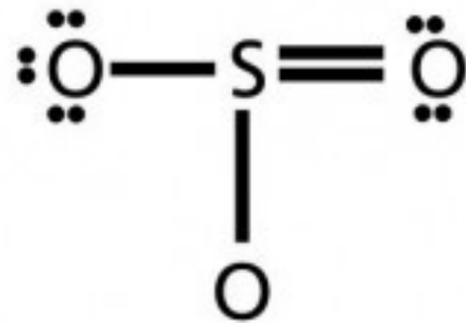
Geometria linear

(180°)



SO₃

Trióxido de enxofre

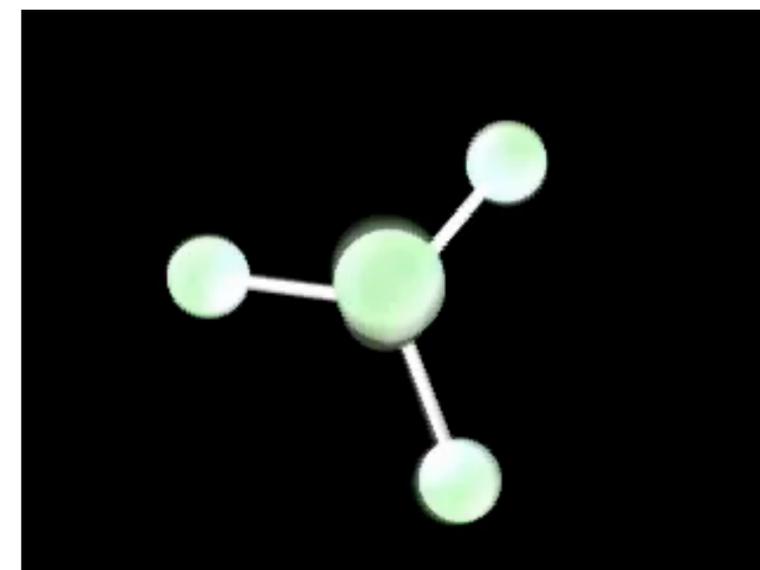
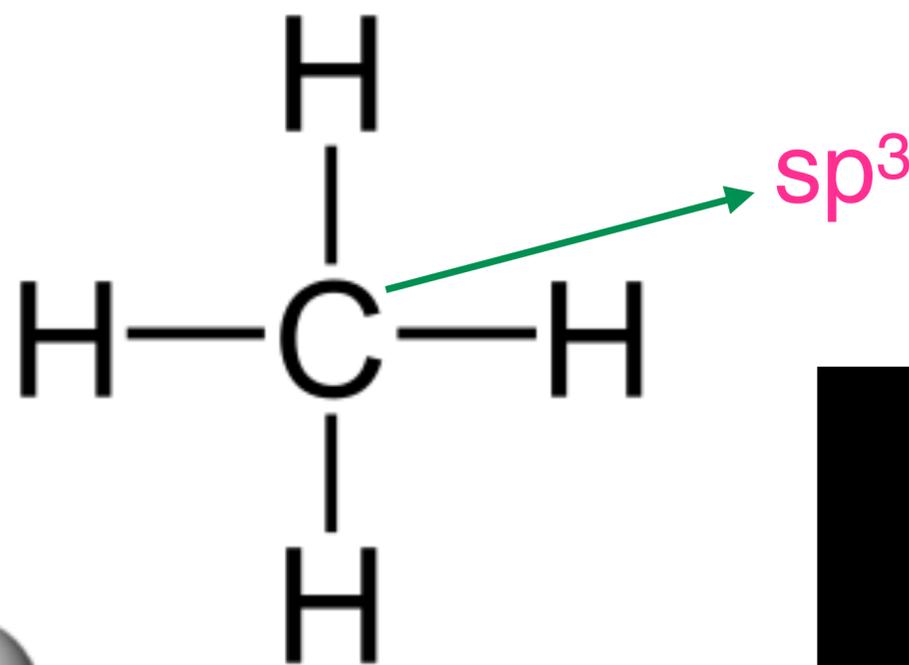
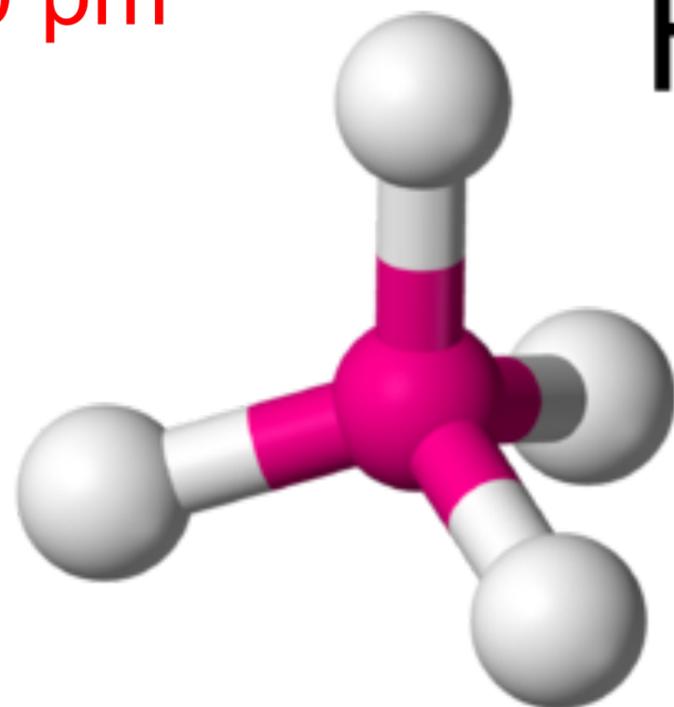
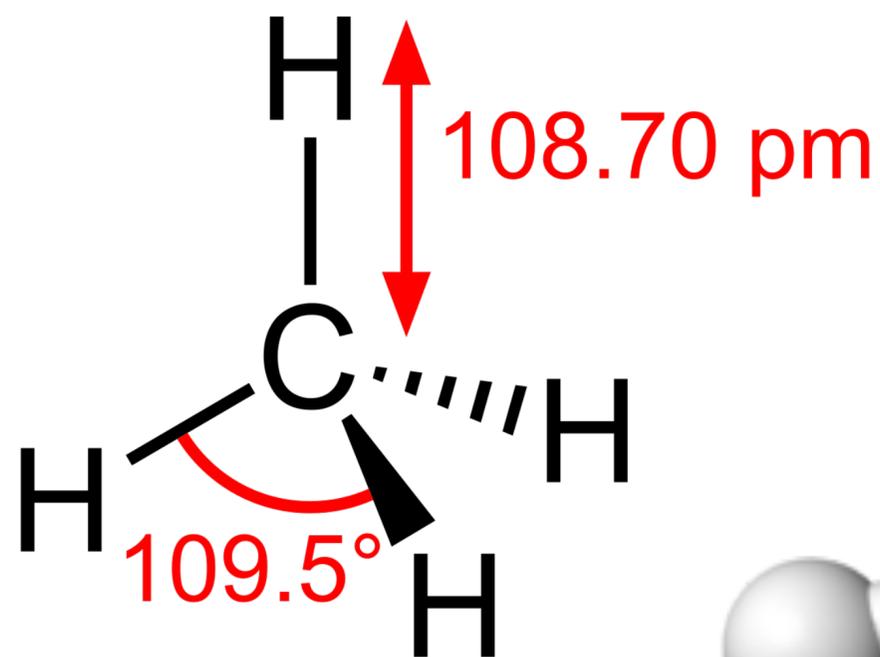


trigonal plana ou triangular
(120°)



CH₄

Metano



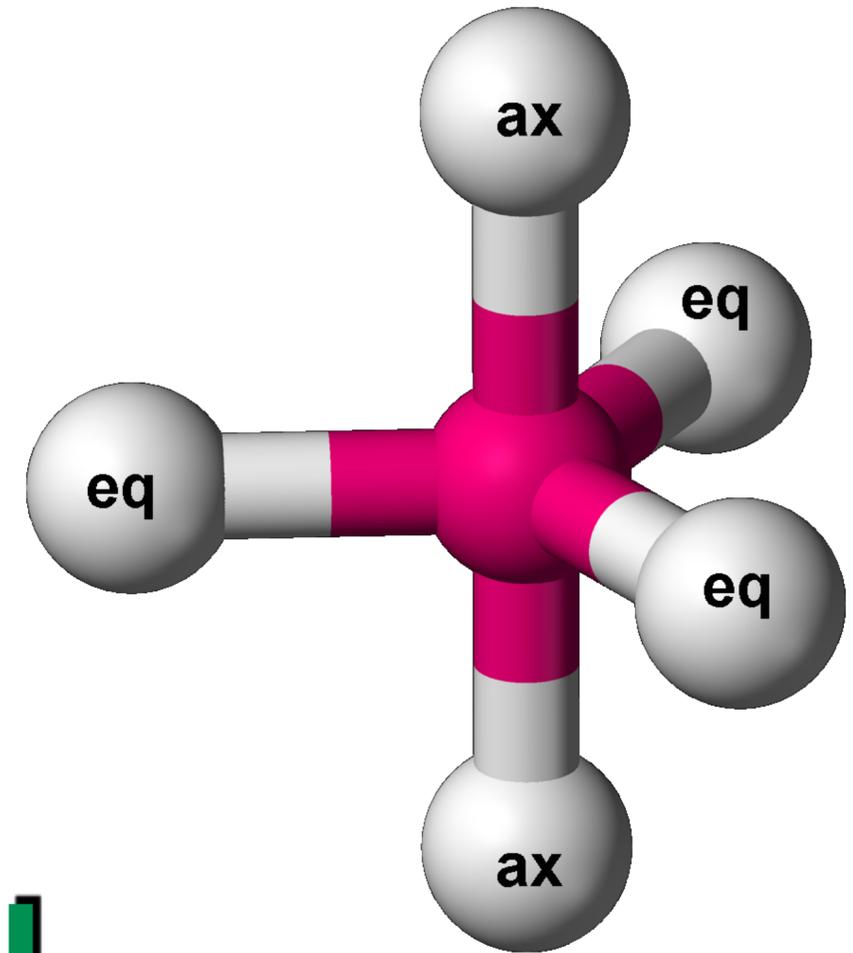
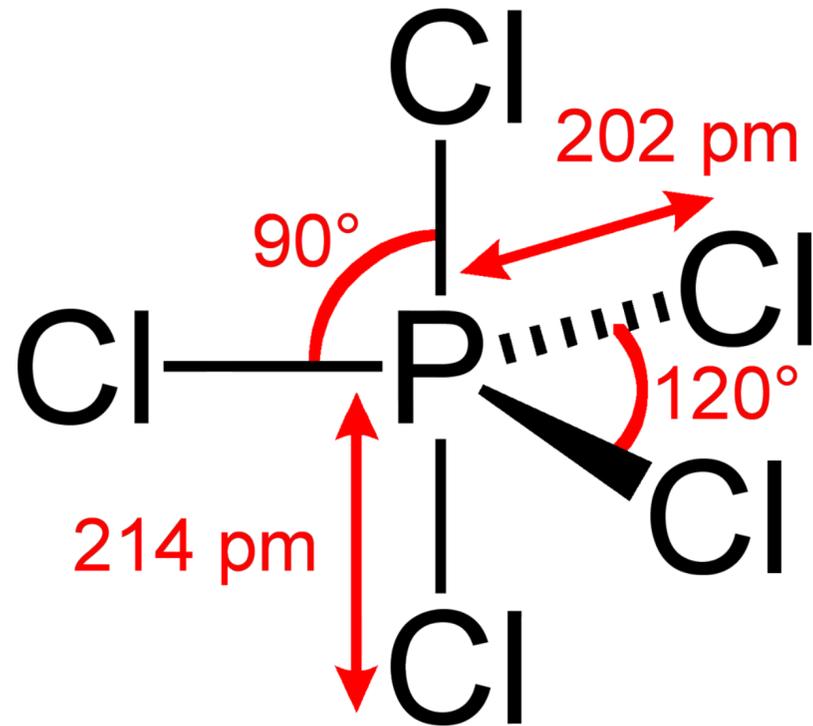
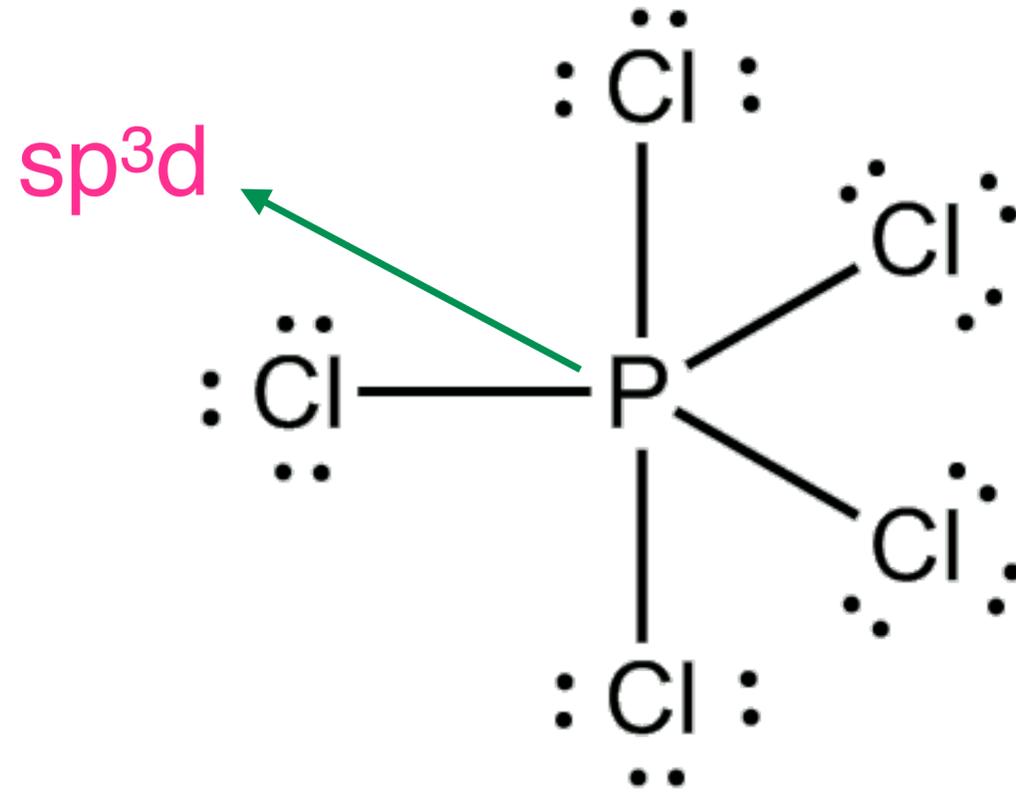
Tetraédrica
(109°28')



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PCl₅

Pentacloreto de fósforo

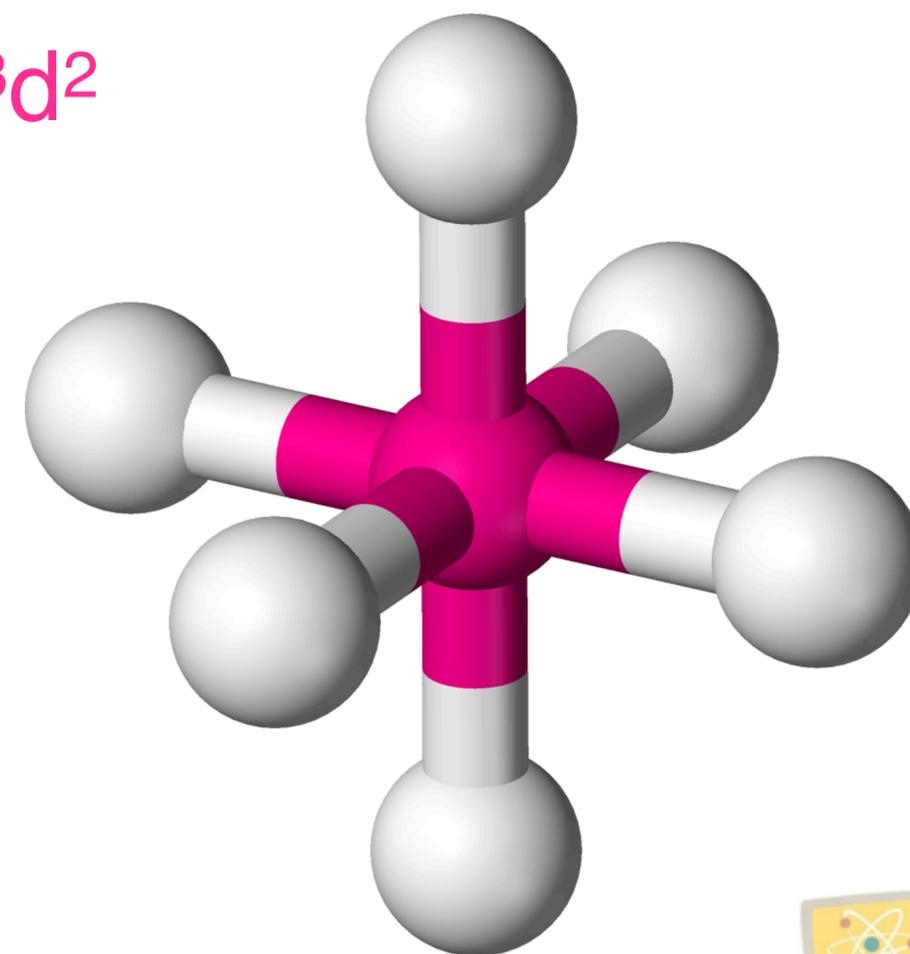
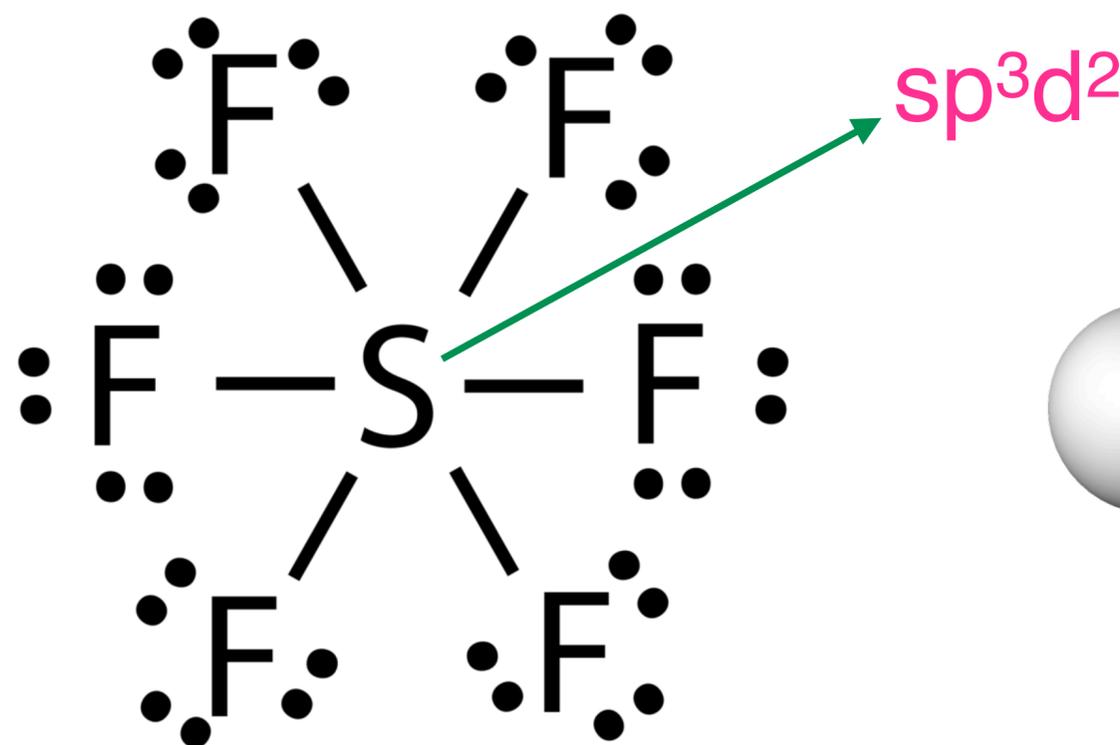
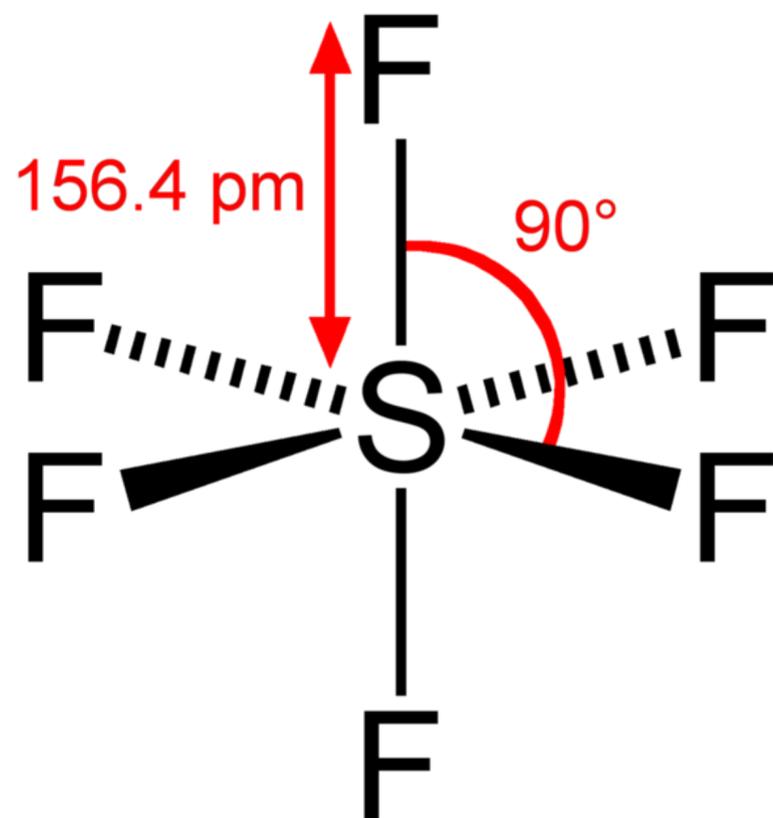


**Bipiramidal ou
Bipirâmide trigonal**

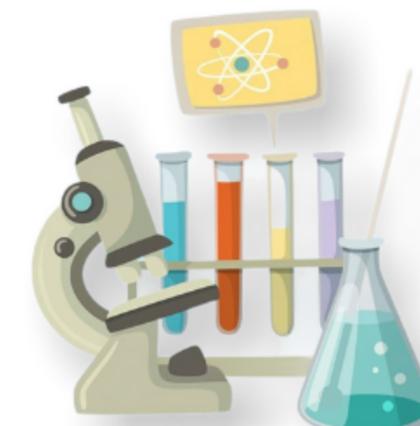


SF₆

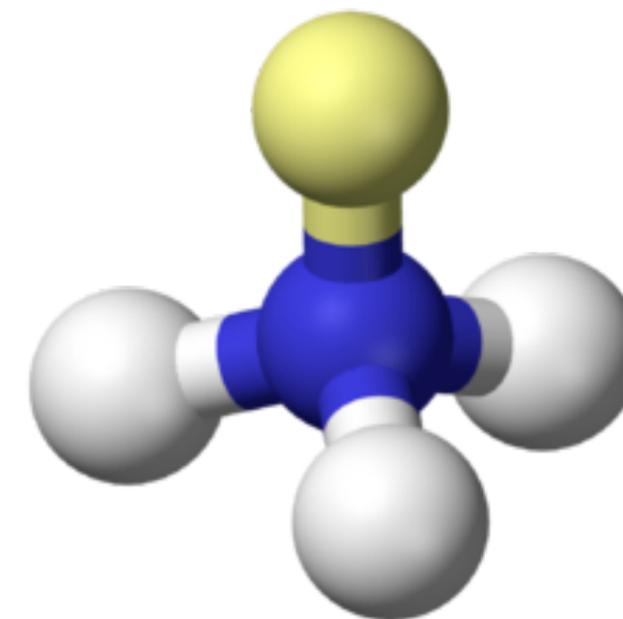
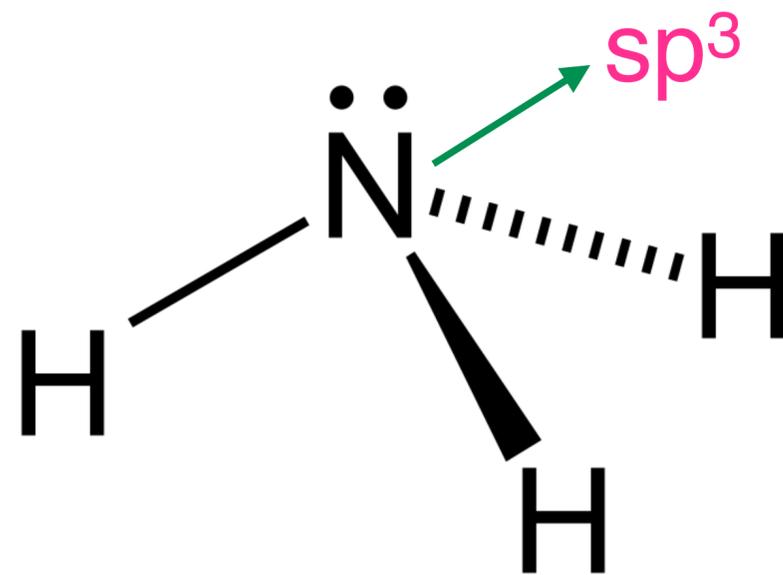
Hexafluoreto de enxofre



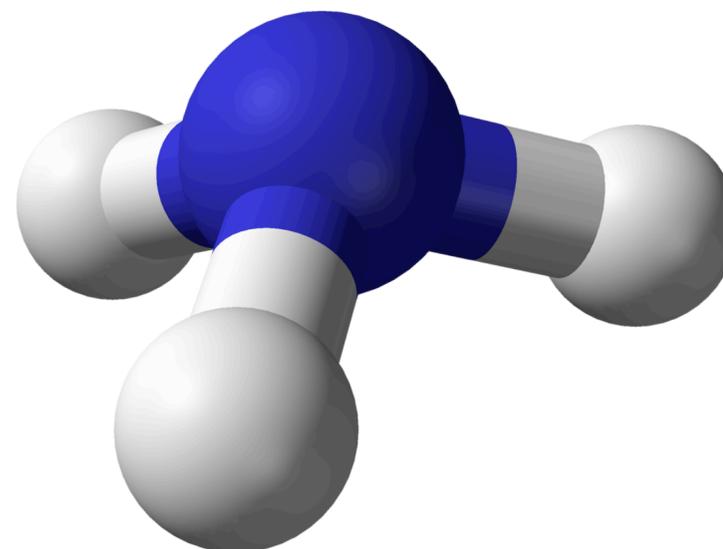
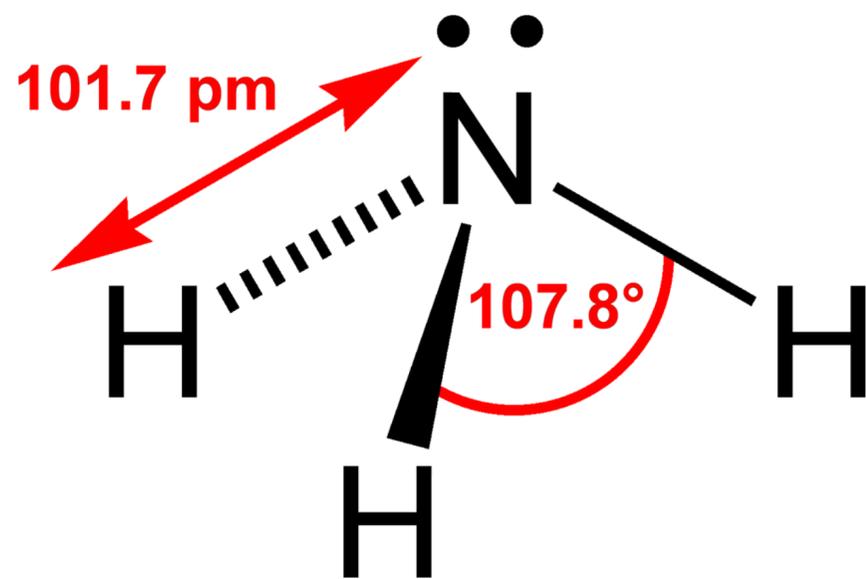
**Octaédrica ou
Bipirâmide quadrada**



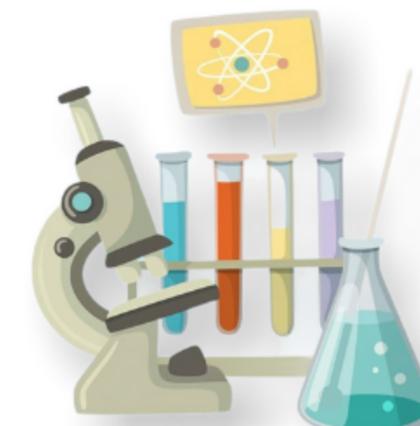
NH₃
Amônia



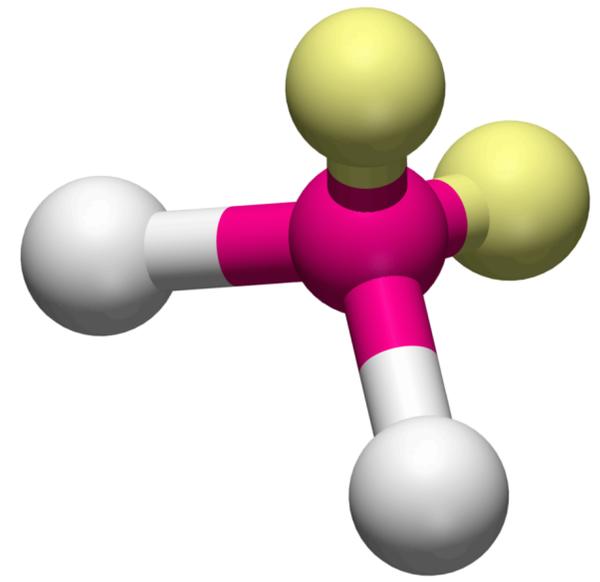
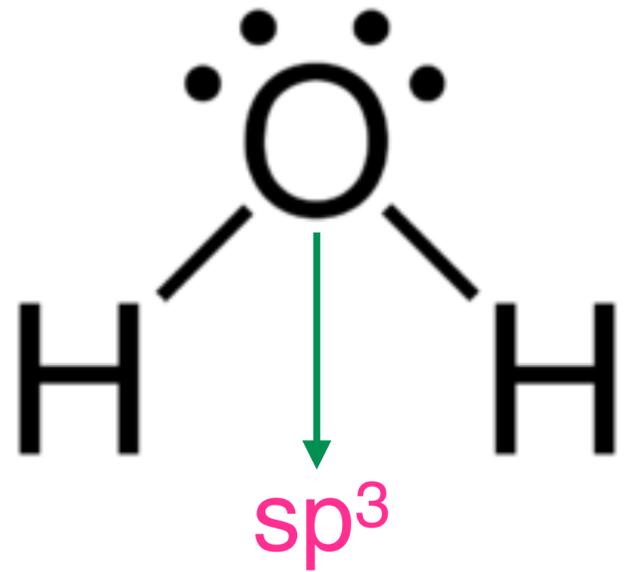
Tetraédrica
(4 pares eletrônicos)



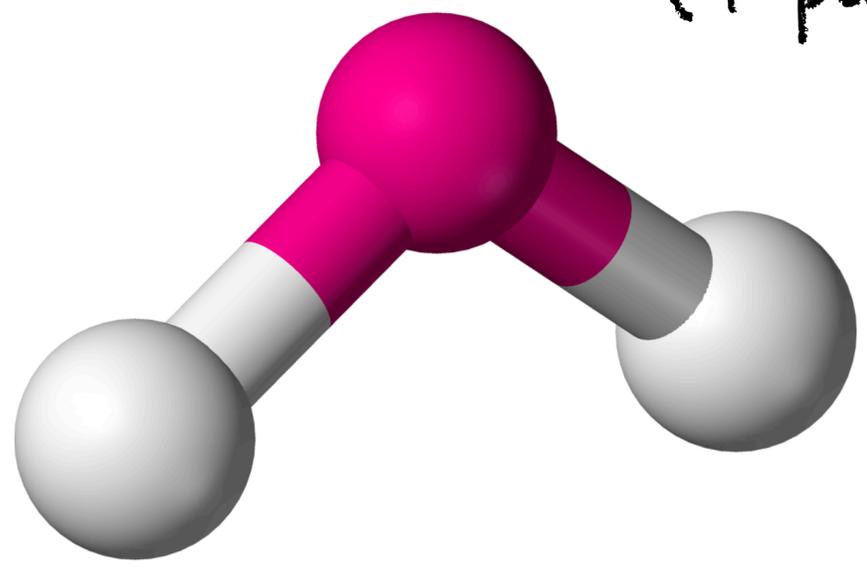
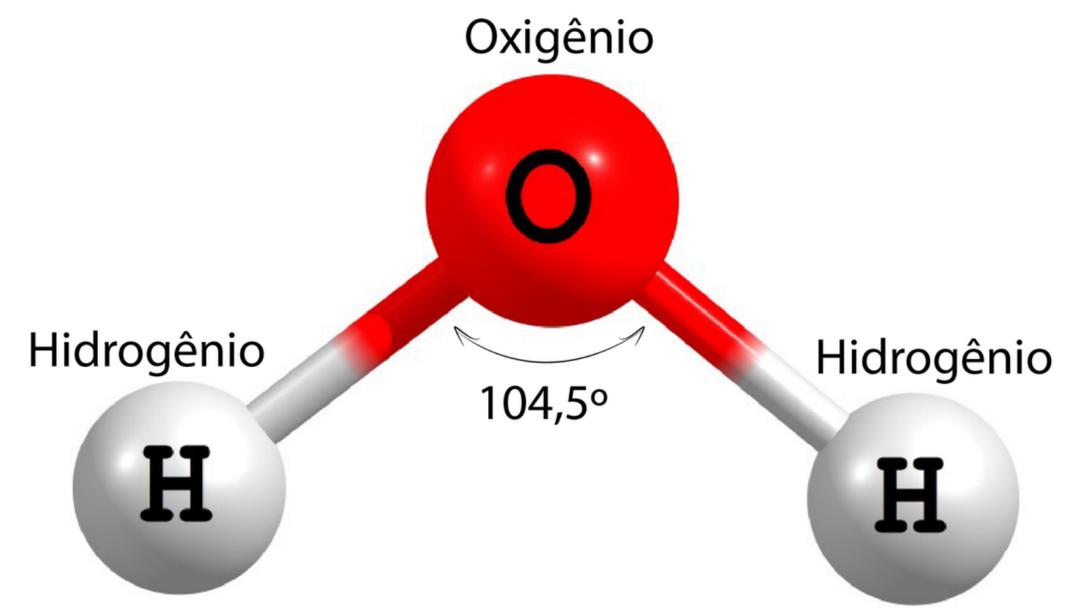
Piramidal



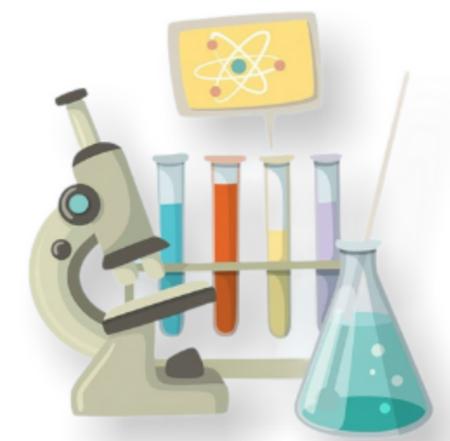
H₂O
Água



Tetraédrica
(4 pares eletrônicos)

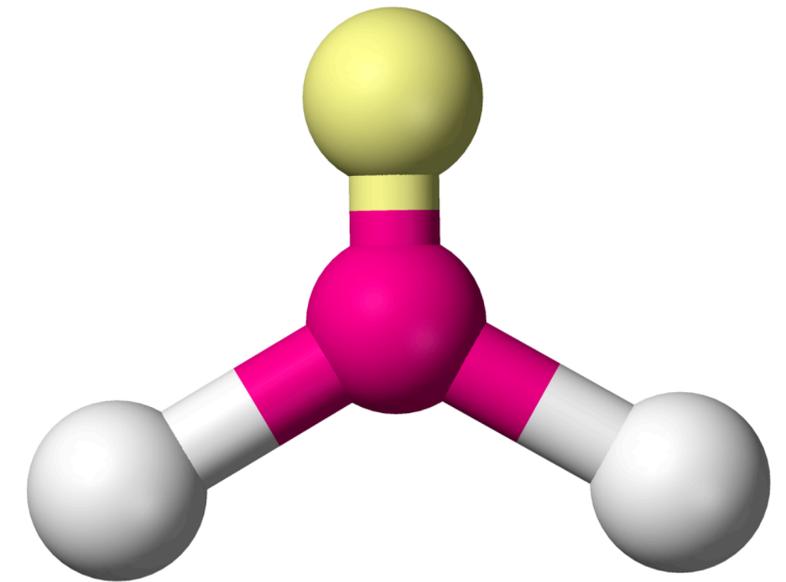
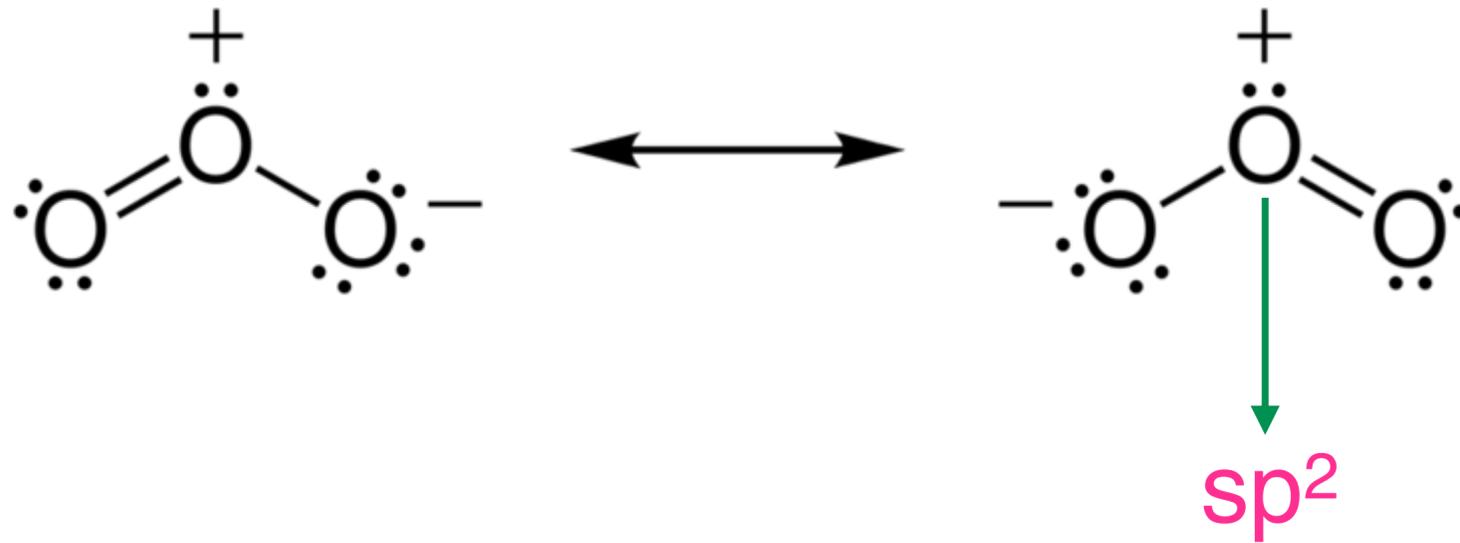


Angular

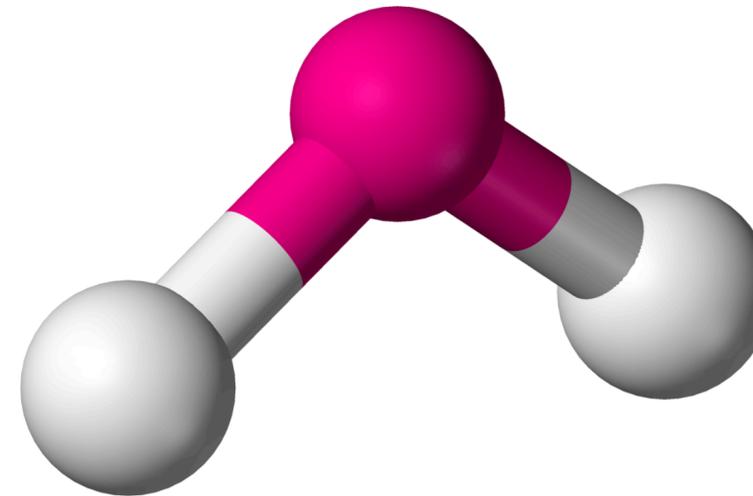
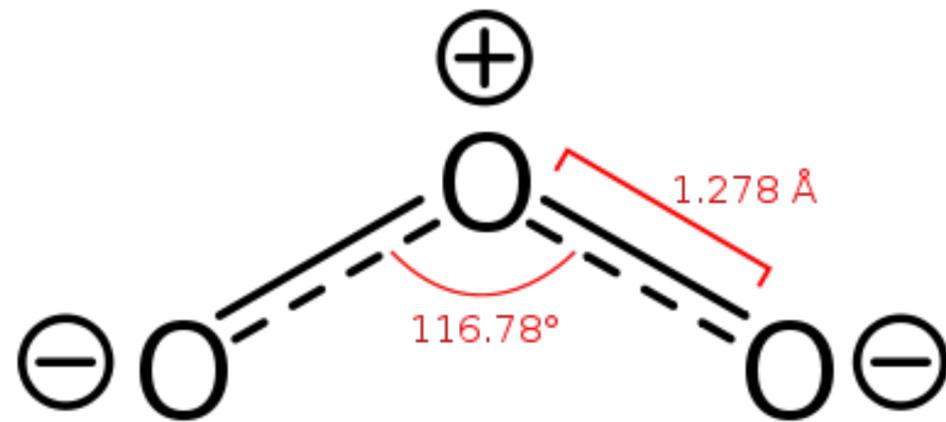


O₃

Ozônio



Trigonal plana
(3 pares eletrônicos)



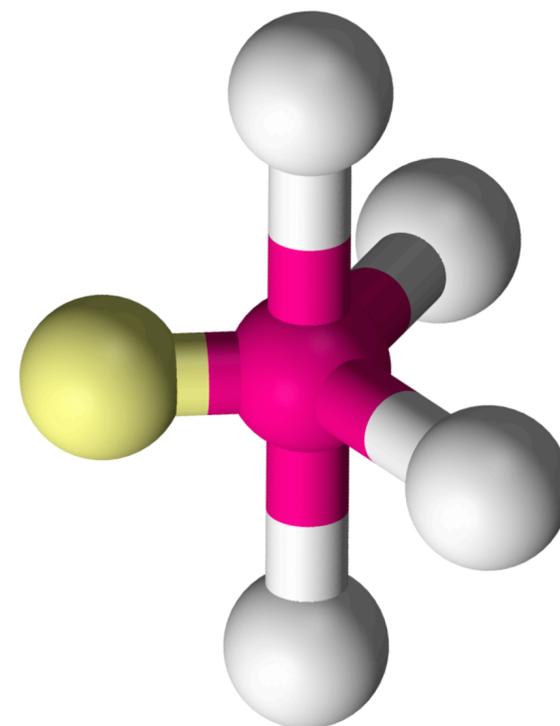
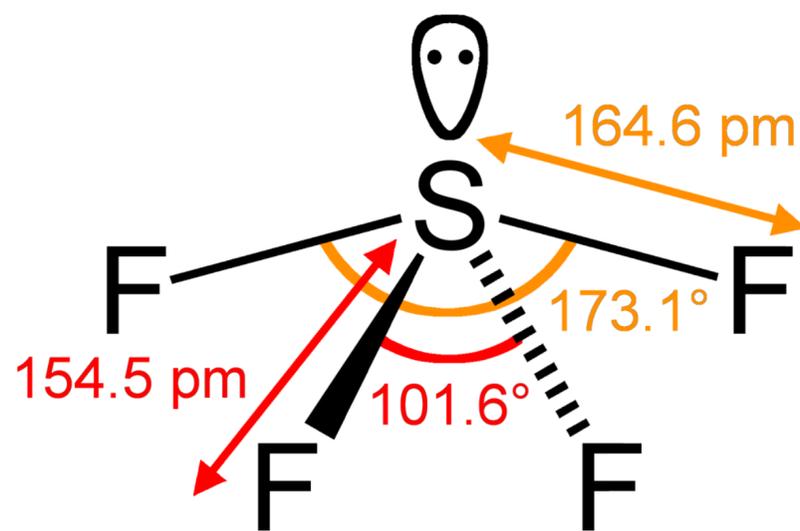
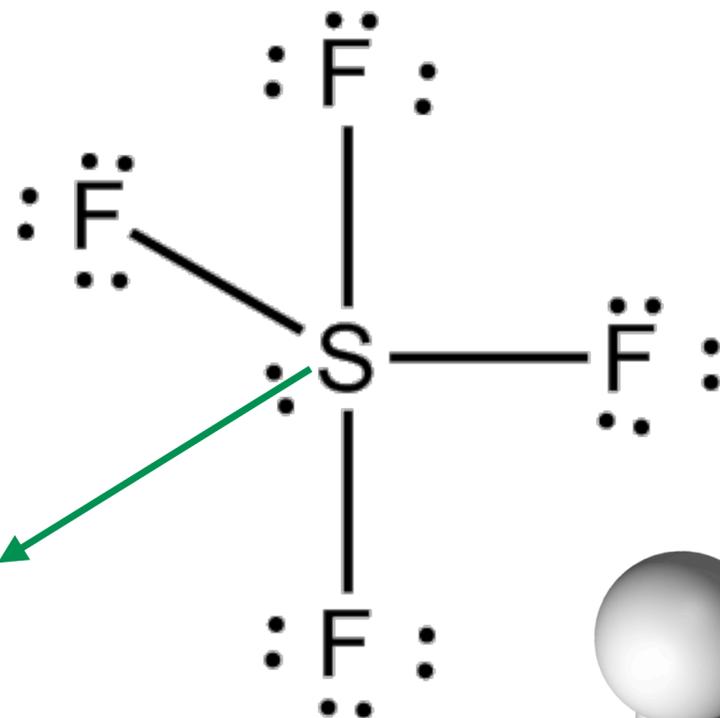
Angular



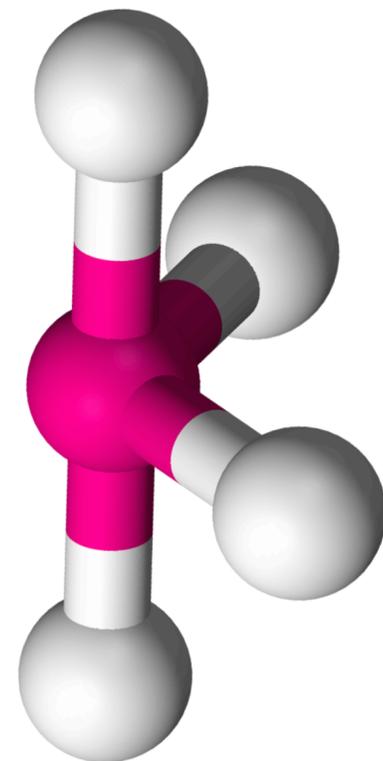
SF₄

Tetrafluoreto
de enxofre

sp³d



Bipiramidal
(5 pares eletrônicos)



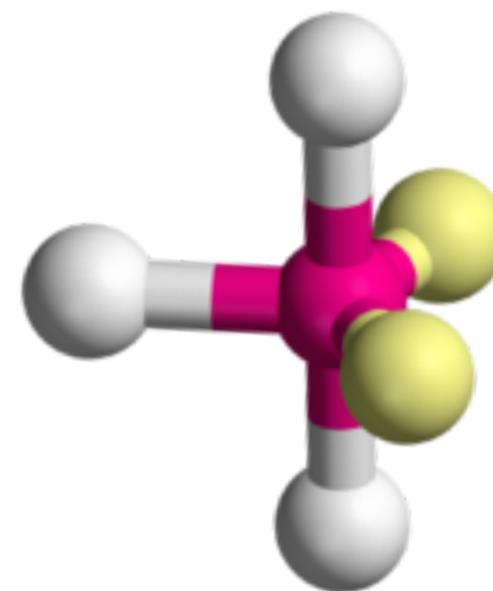
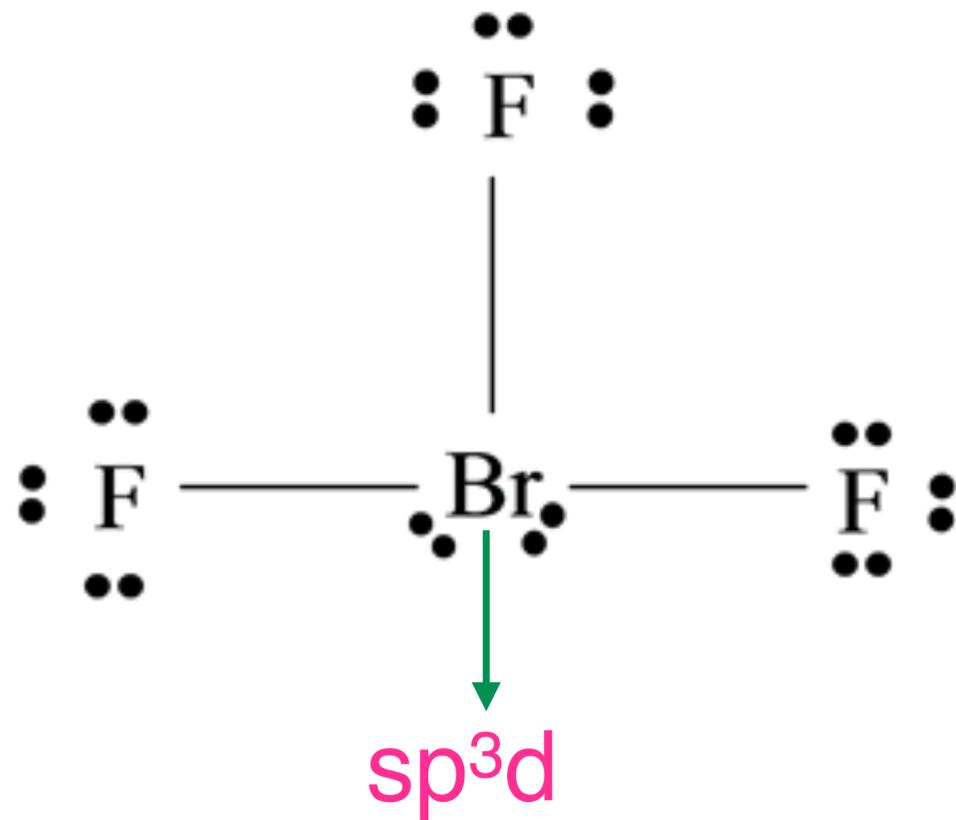
Gangorra



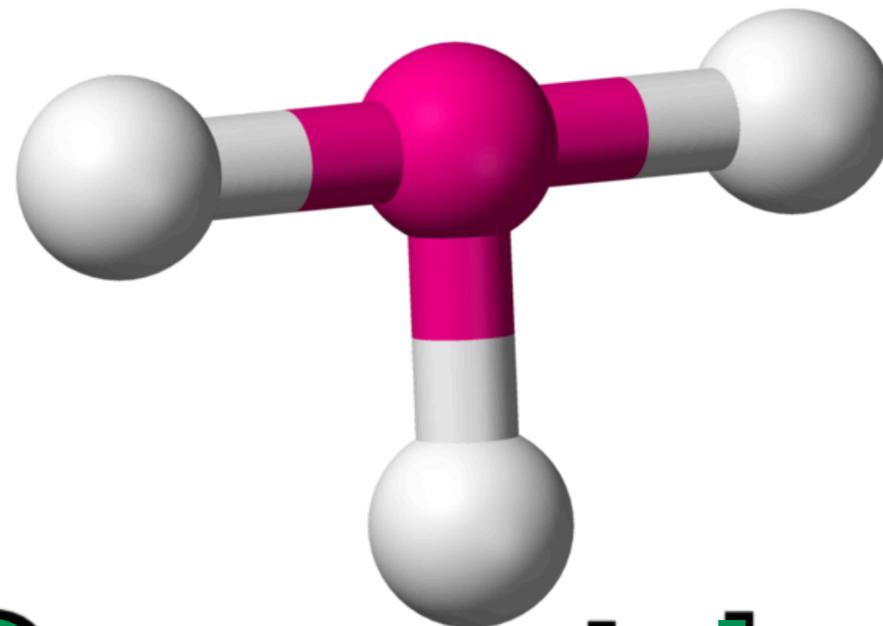
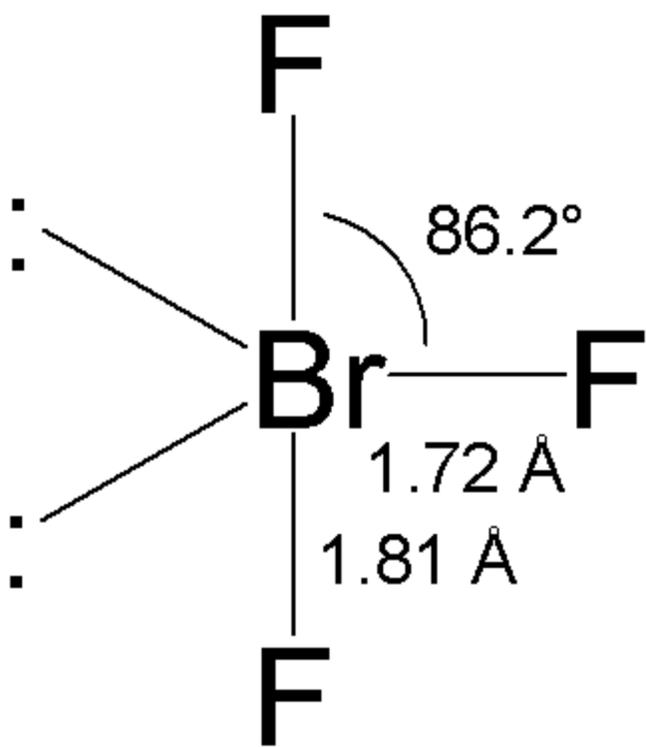
Prof: Alex

BrF₃

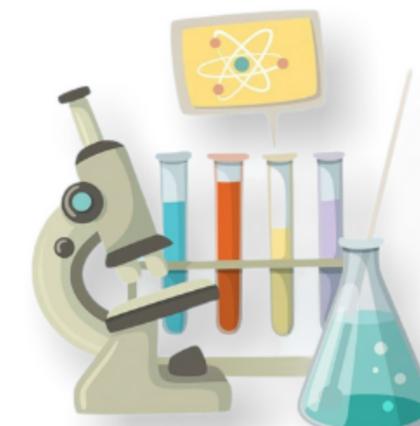
Trifluoreto de bromo



Bipiramidal
(5 pares eletrônicos)



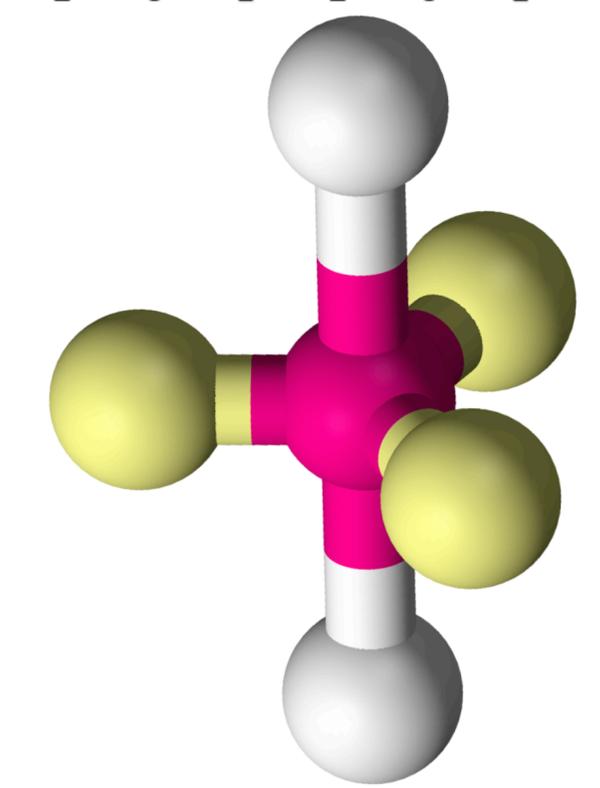
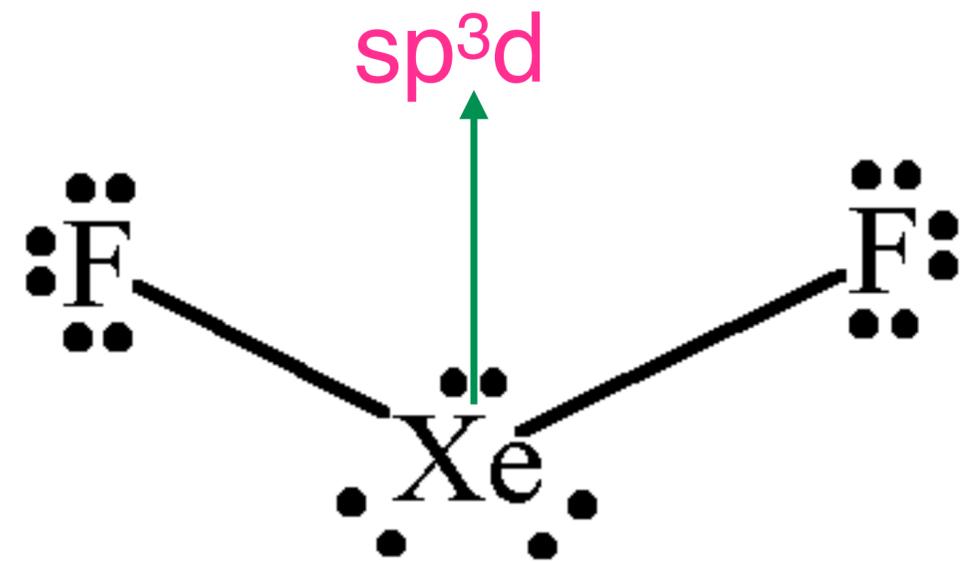
Geometria T



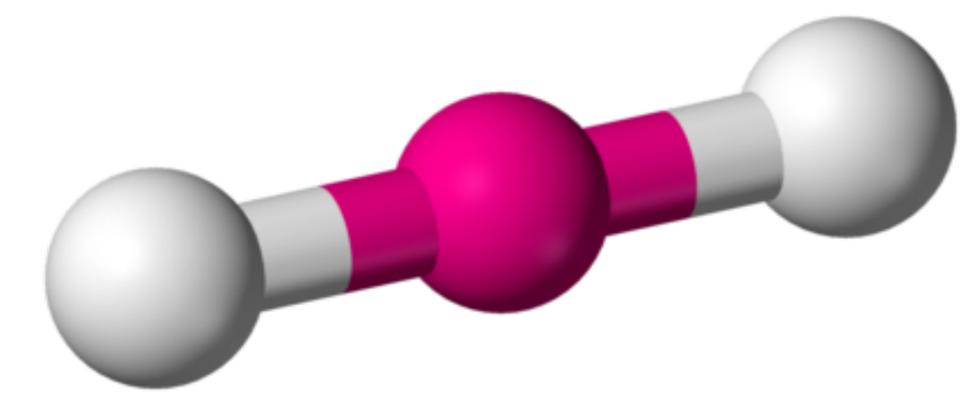
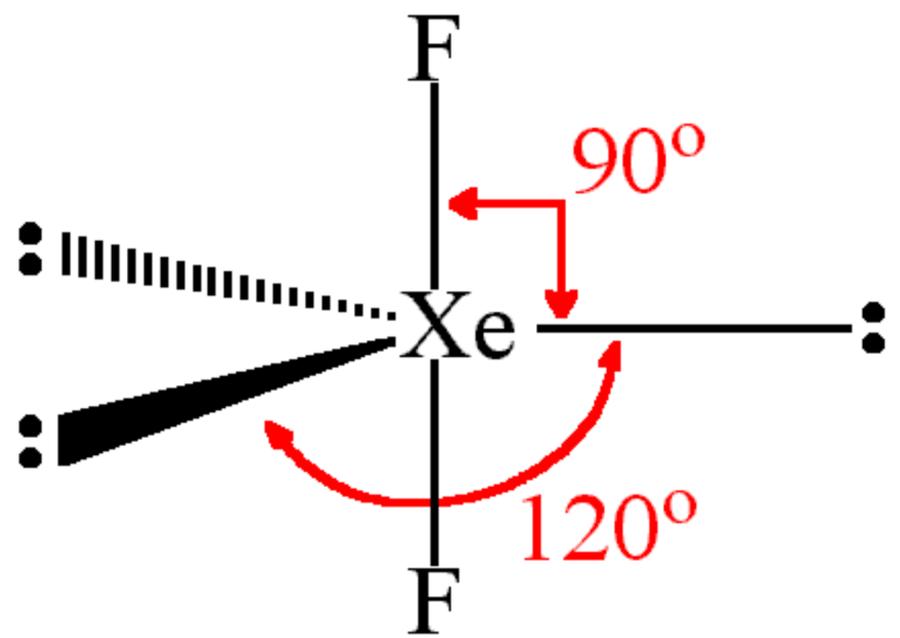
Prof: Alex

XeF₂

Difluoreto de xenônio



Bipiramidal
(5 pares eletrônicos)

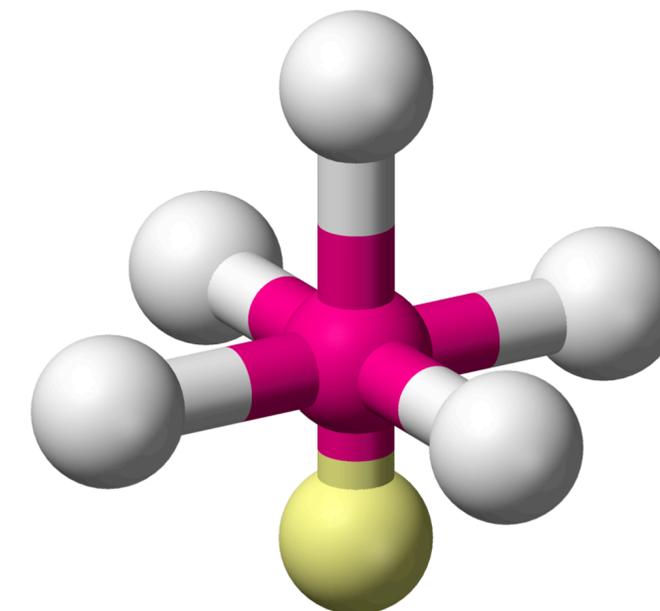
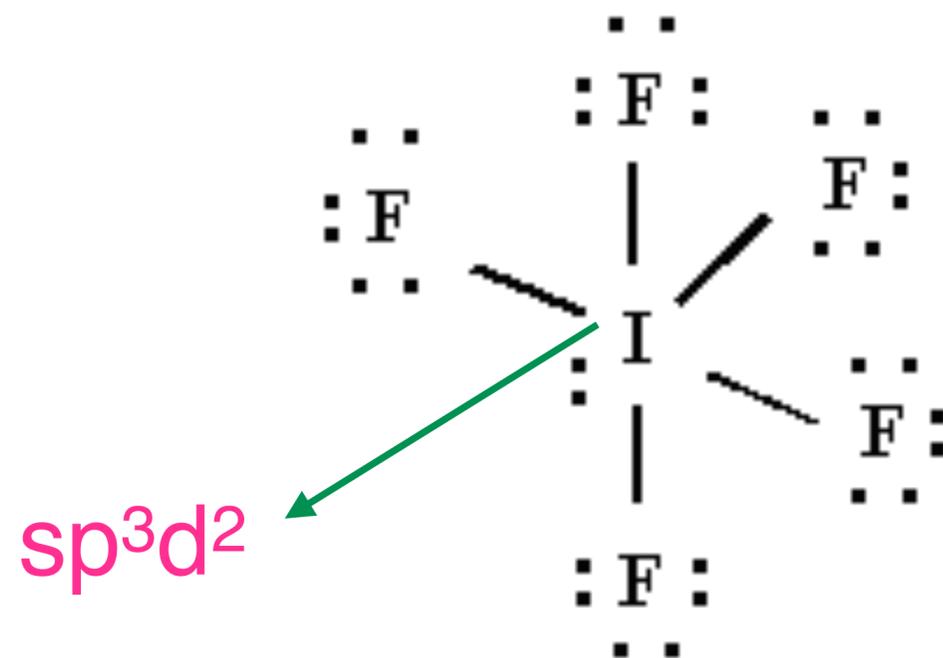


Linear

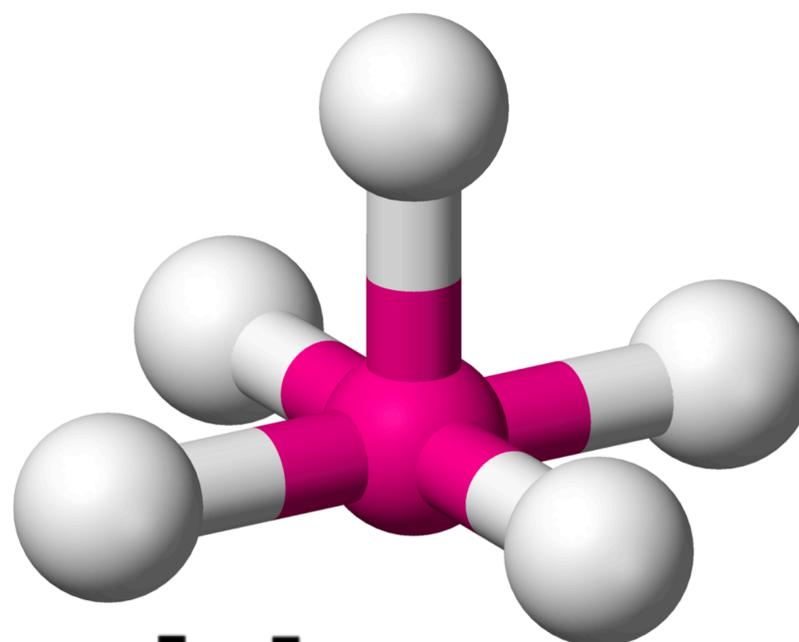
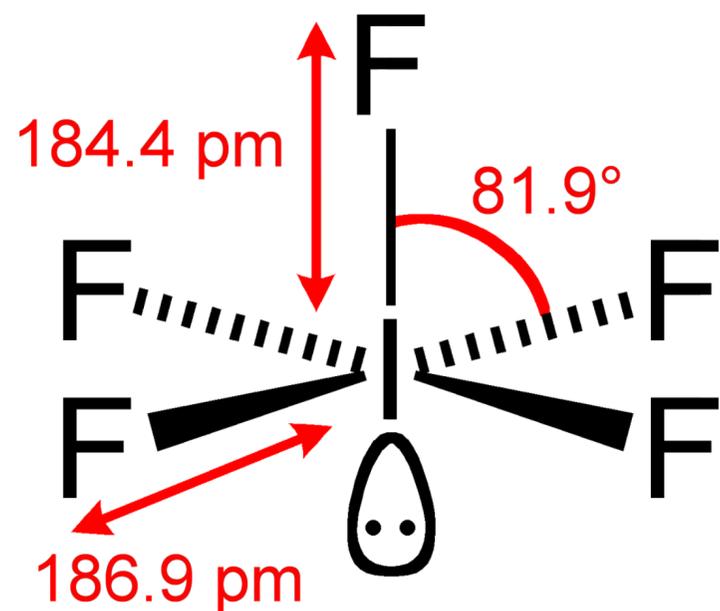




Pentafluoreto
de iodo



Octaédrica
(6 pares eletrônicos)

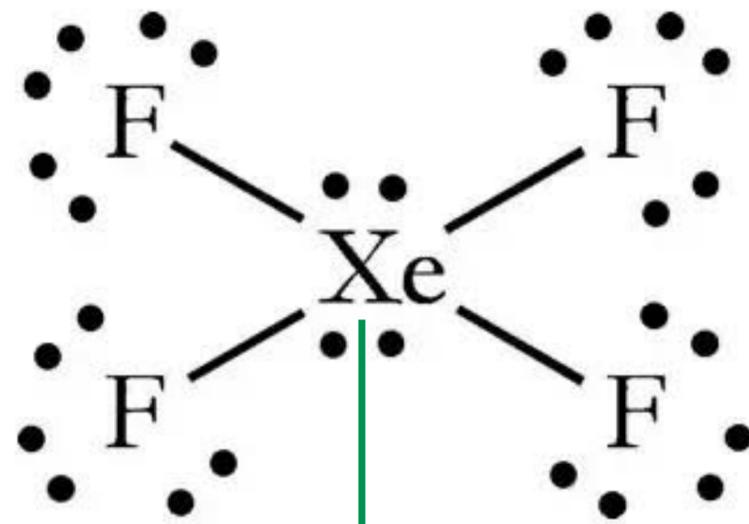
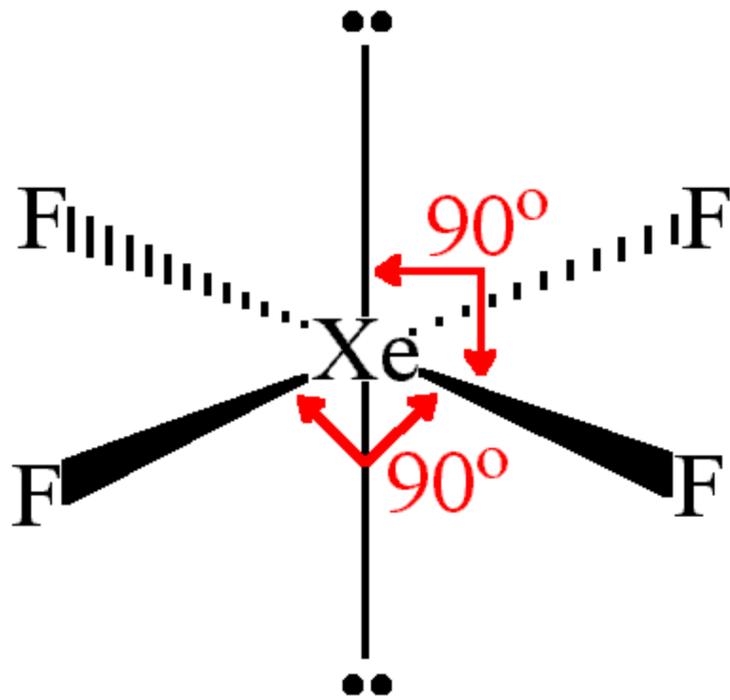


Pirâmide quadrada

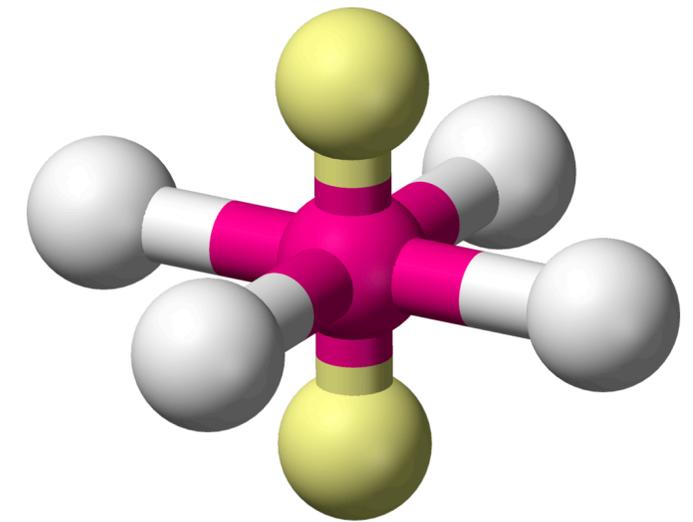
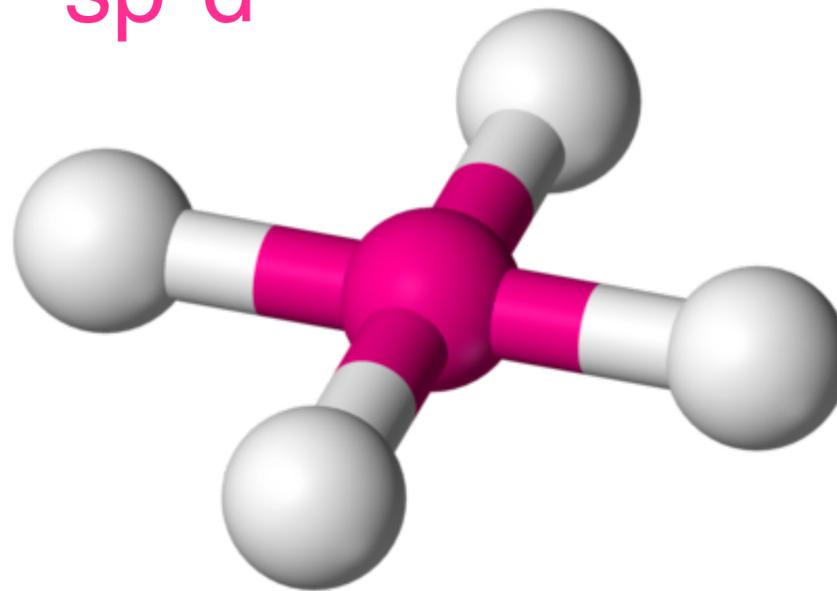




Tetrafluoreto
de xenônio



sp^3d^2



Octaédrica
(6 pares eletrônicos)

Quadrado planar

