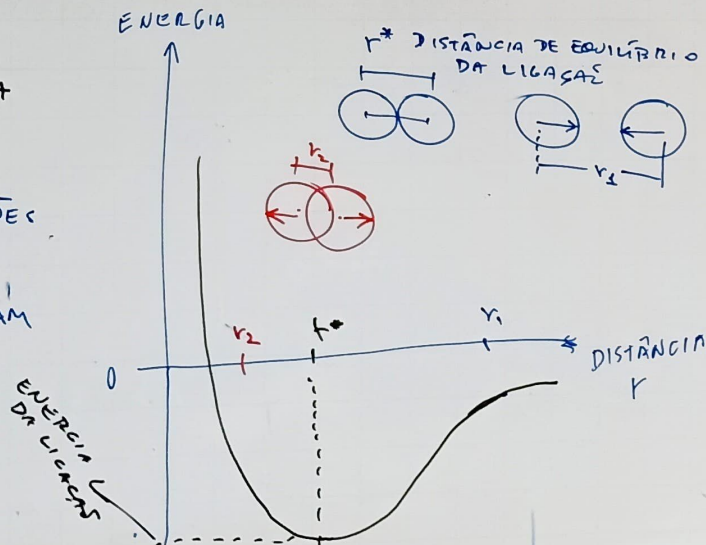
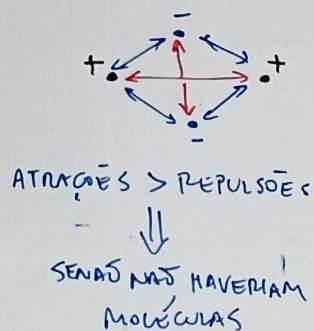


HIBRIDIZAÇÃO

VSEPR → GEOMETRIAS ← ORBITAIS

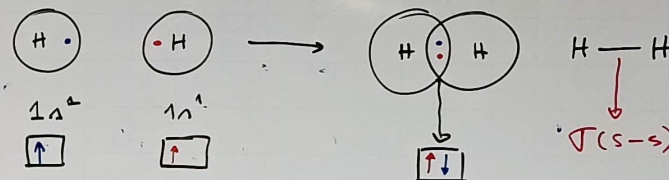
PORQUE SÓ HA, NO MÁXIMO, 2 LIGAÇÕES DUPLAS

HIBRIDIZAÇÕES: EXPLICAR LIGAÇÃO QUÍMICA E GEOMETRIA A PARTIR DA COMBINAÇÃO DE ORBITAIS DOS ÁTOMOS

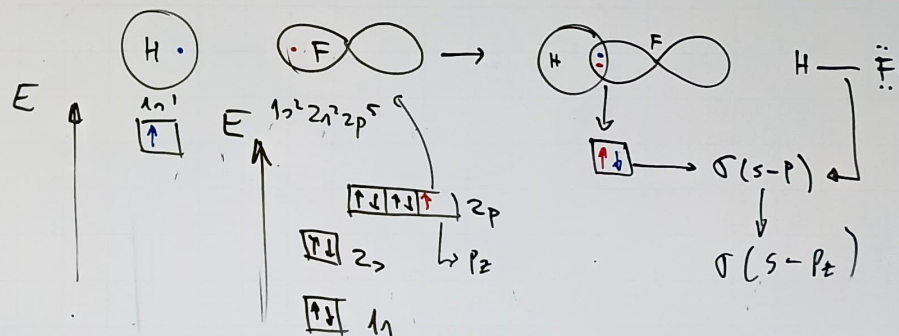


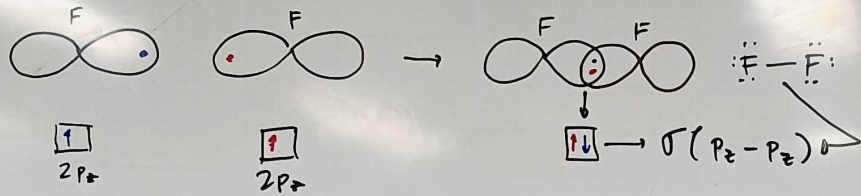
* LIGAÇÕES SIMPLES

LIGAÇÃO QUÍMICA É SOBREPOSIÇÃO DE ORBITAIS ATÔMICOS DE 1 e⁻

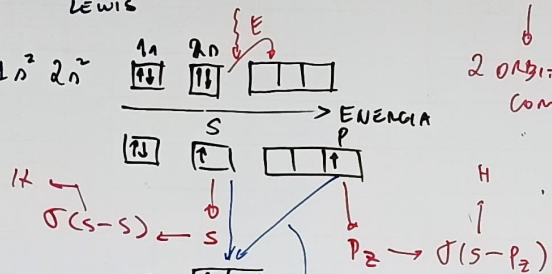
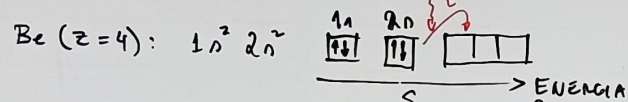
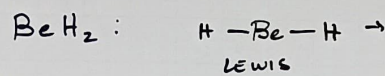


LIGAÇÃO SIGMA (σ): FORMADA PELA SOBREPOSIÇÃO DOS ORBITAIS AO LONGO DO EIXO DA LIGAÇÃO

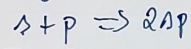




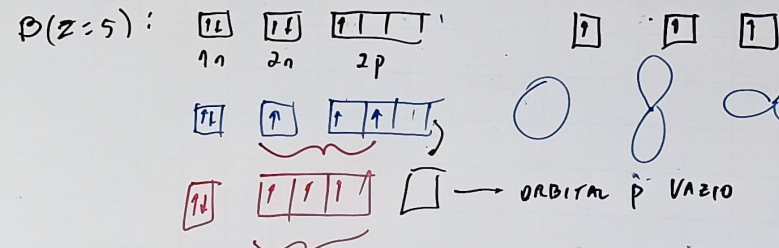
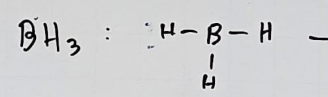
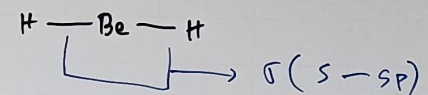
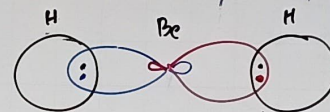
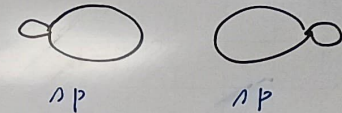
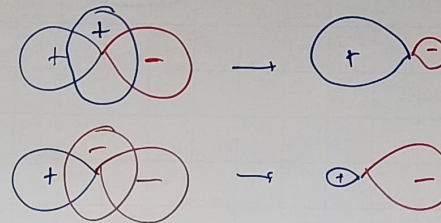
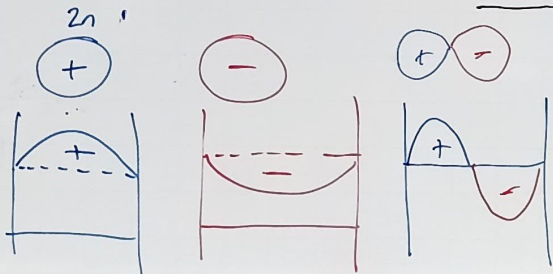
- MAIS ÁTOMOS E MAIS LIGAÇÕES



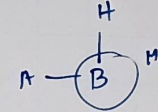
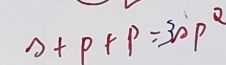
HIBRIDIZAÇÃO



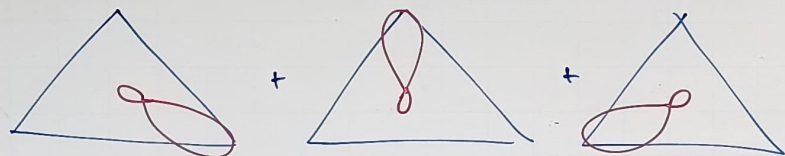
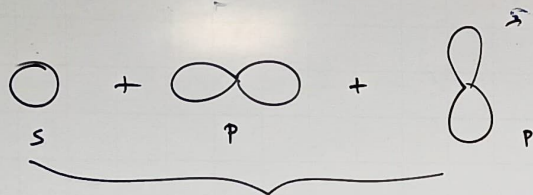
INTERFERÊNCIA
CONSTRUTIVA:
FASES IGUAIS
INTERFERÊNCIA
DESTRUTIVA:
FASES DIFERENTES



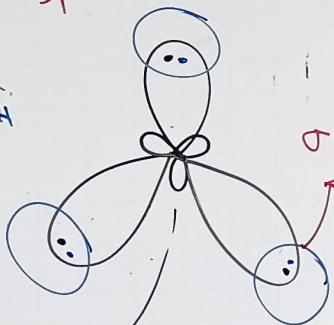
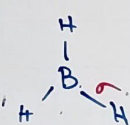
ORBITAL P VAZIO



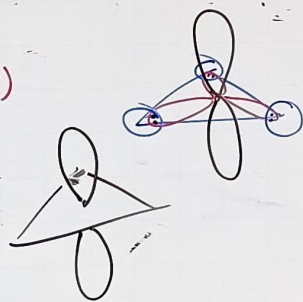
HIBRIDIZAÇÃO



sp

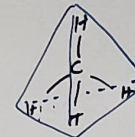
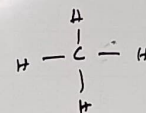


$\sigma(s-sp^2)$

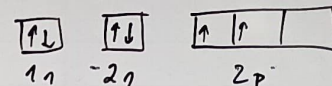


z

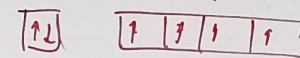
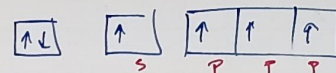
CH_4



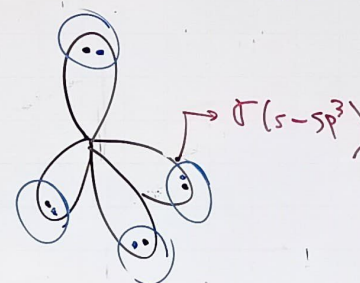
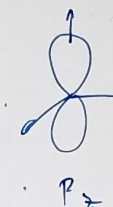
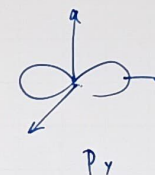
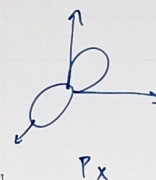
$C (Z=6)$



APENAS 2 ORBITAIS DISPONÍVEIS



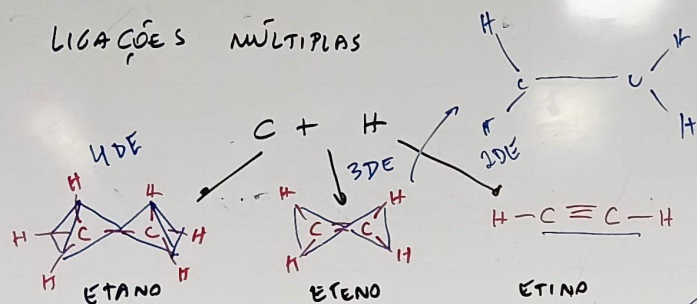
$s + p + p + p = 4sp^3$



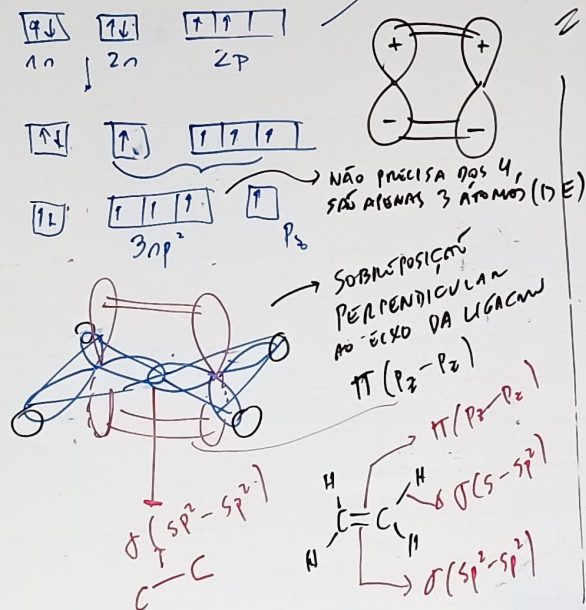
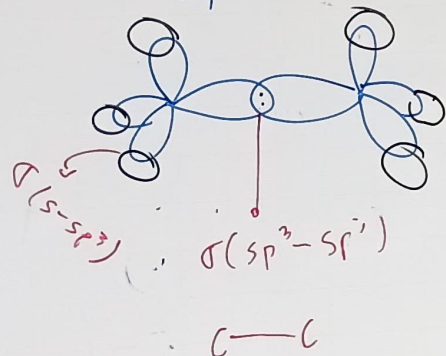
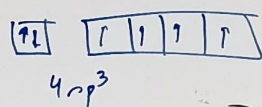
$\sigma(s-sp^3)$

IMPORTANTE NÃO É DESENHAR, É SABER COMBINAR O NÚMERO E TIPO CERTO DE ORBITAIS PARA FORMAR O NÚMERO DE LIGAÇÕES DESEJADO

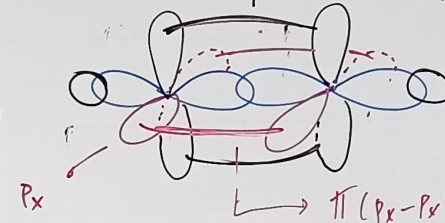
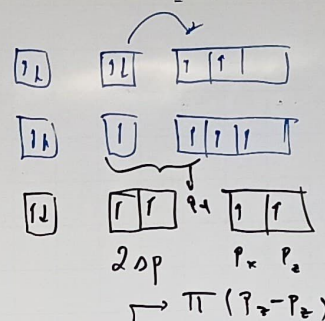
* LIGAÇÕES MÚLTIPLAS



4 ORBITAIS DE 2e⁻ → 4 DE

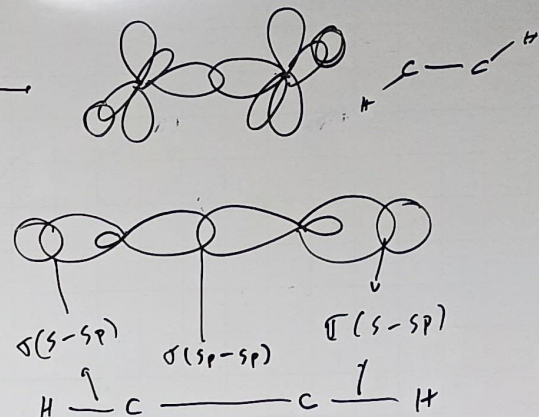


2 DE



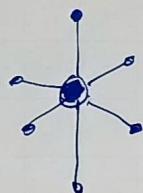
QUANTAS DIMENSÕES: 3 (x, y, z)

π



POA ISTO QUE HÁ NO MÁXIMO 2 LIGAÇÕES π

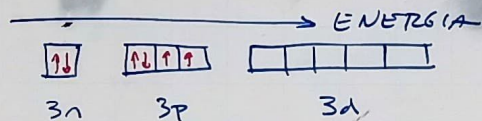
SF₆:



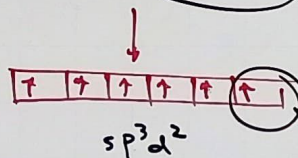
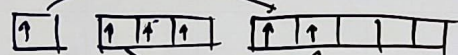
OCTAÉDRICA

DE=6

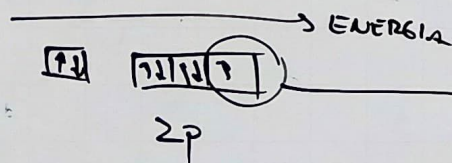
S (Z=16): 1s² 2s² 2p⁶ 3s² 3p⁴



OSP: 2 + 6 = DE

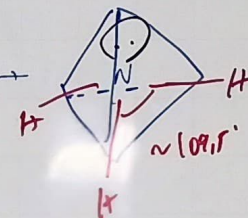
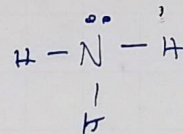


F (Z=9): 1s² 2s² 2p⁵



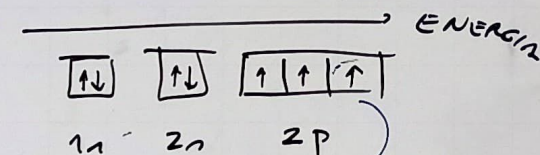
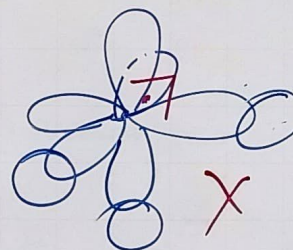
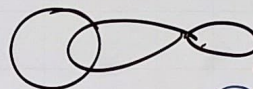
σ(p-sp³d²)

NH₃:



H: 1s

N (Z=7): 1s² 2s² 2p³



OSP = 2 + 3 = DE

