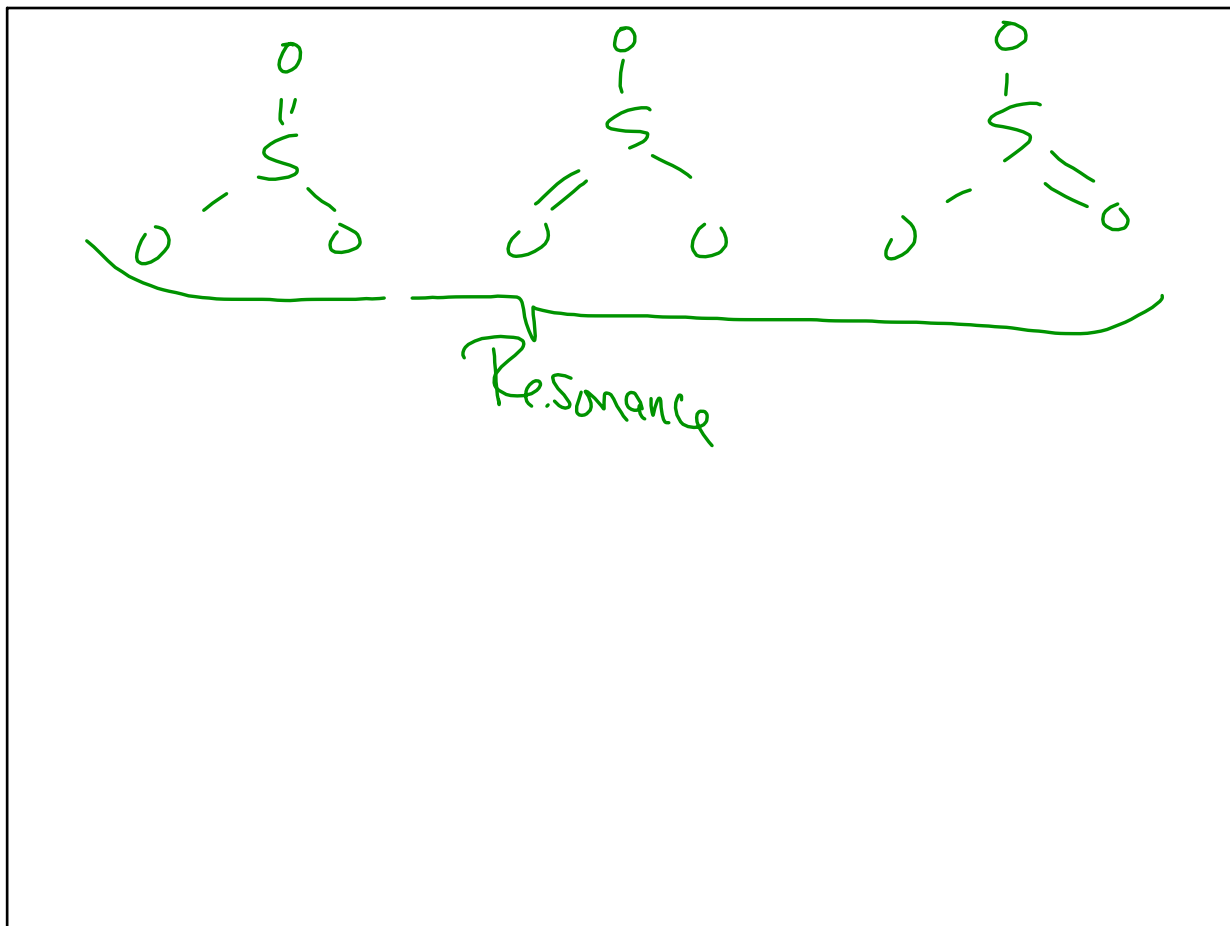


Nov 21-7:37 AM



Nov 21-7:51 AM

**9.1-1 USEPR**

# sites	shape	Bond A	hybridized orbitals
2	Linear	180	Sp
3	trigonal planar	120	Sp <sup>2</sup>
4	tetrahedral	109.5	Sp <sup>3</sup>
5	trigonal bipyramidal (base to Apex = 90°)	base Δ = 120 top/bottom 180 linear	Sp <sup>3</sup> d
6	octahedral	base □ 90° top/bottom 180 base → Apex 90°	Sp <sup>3</sup> d <sup>2</sup>

Nov 21-7:54 AM

$NF_3$   
 $S + 3(7)$   
 $26 - 6 = 20 - 18 = 2$

$NH_3$   
 $S + 3(1)$   
 $8 - 6 = 2 - 2 = 0$

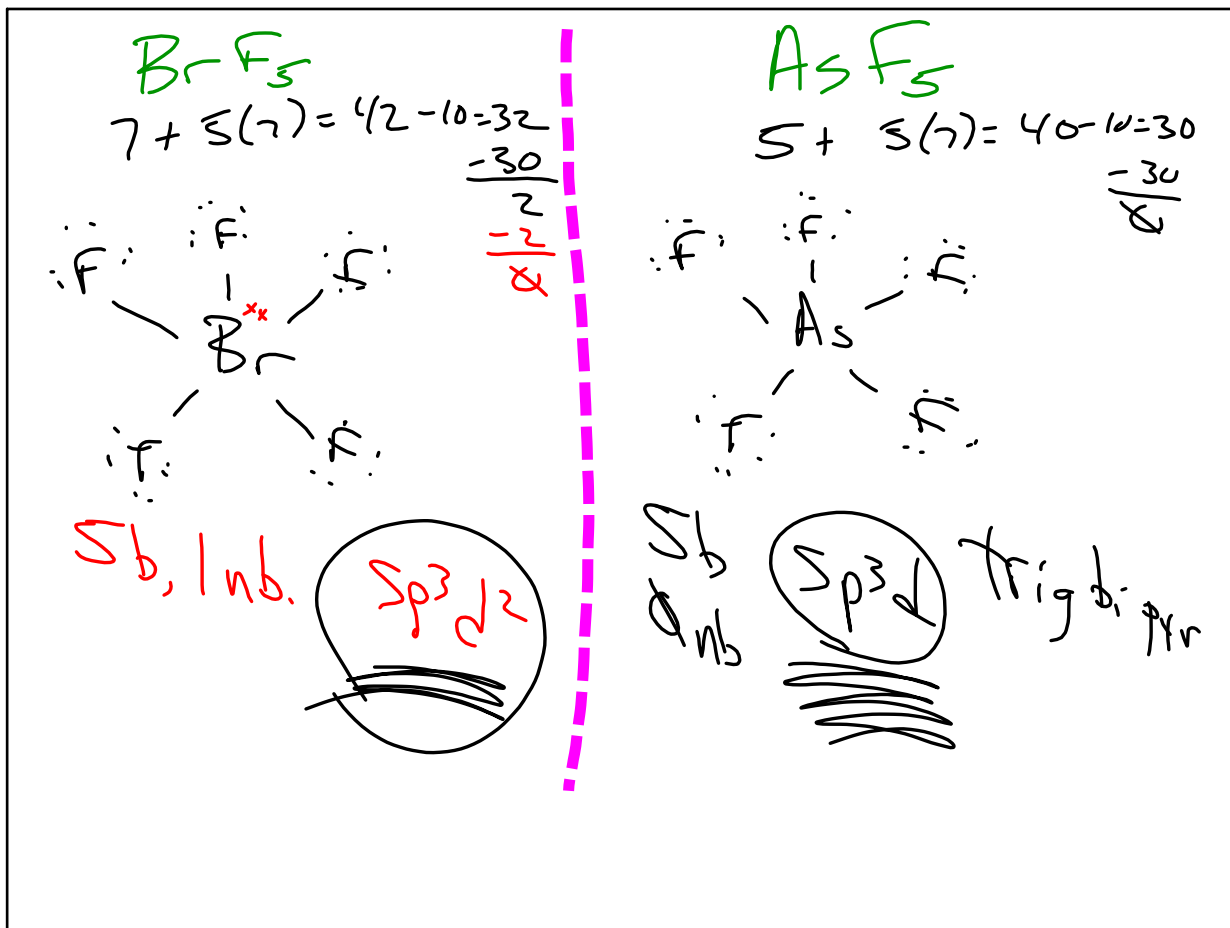
$F - N - F$   
 $F$

$H - N - H$   
 $H$

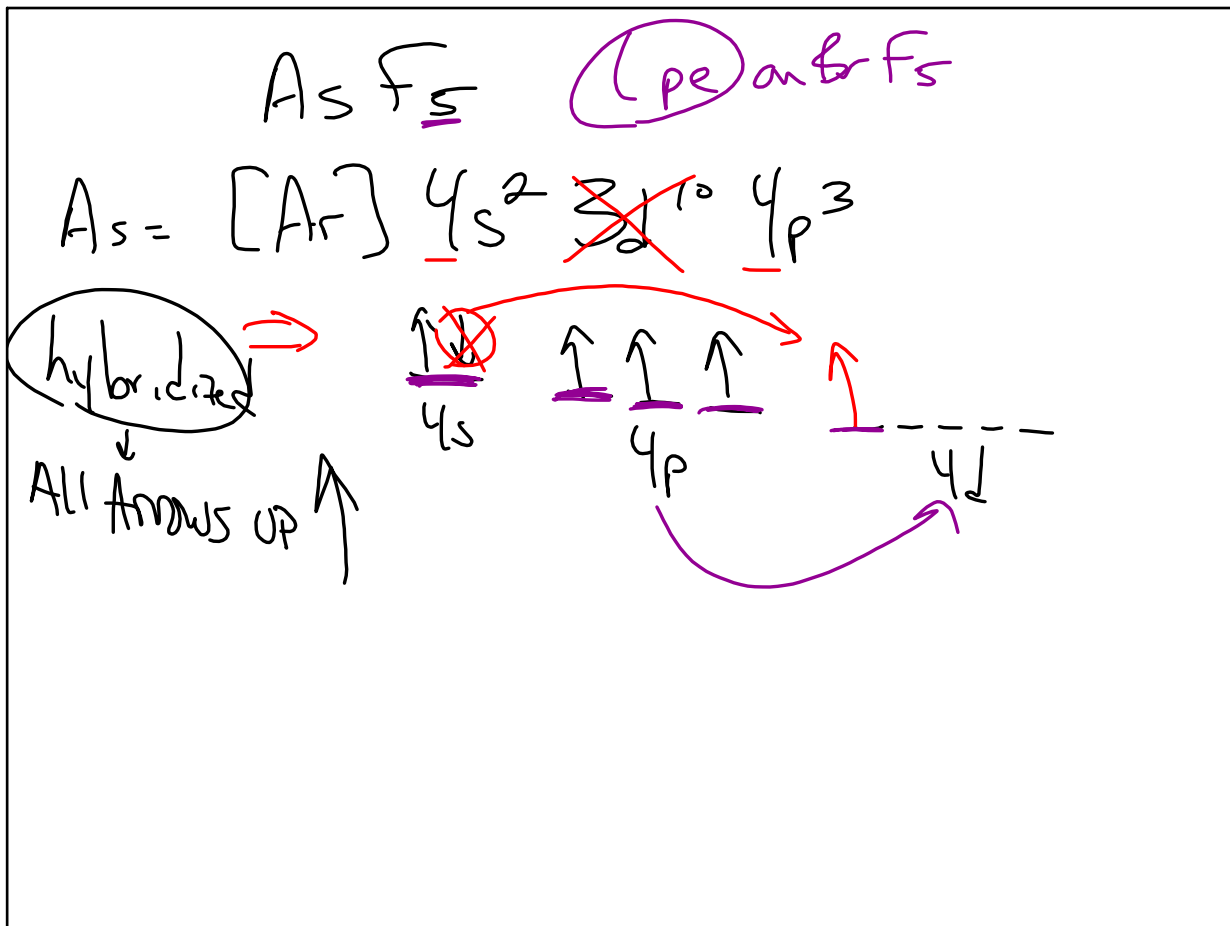
(Site = (Per...))

(Sp<sup>3</sup>)  
 (Sp<sup>3</sup>)

Nov 21-8:20 AM



Nov 21-8:36 AM



Nov 21-8:46 AM

$PCl_5$   
 $5 + 5(7) = 40 - 10 = 30$   
 $\frac{-30}{2}$

$P = [Ne] 3s^2 3p^3$

$PF_5 \rightarrow$   
 $PBr_5 \rightarrow$  SAME group  
 $\rightarrow$  use  $p$

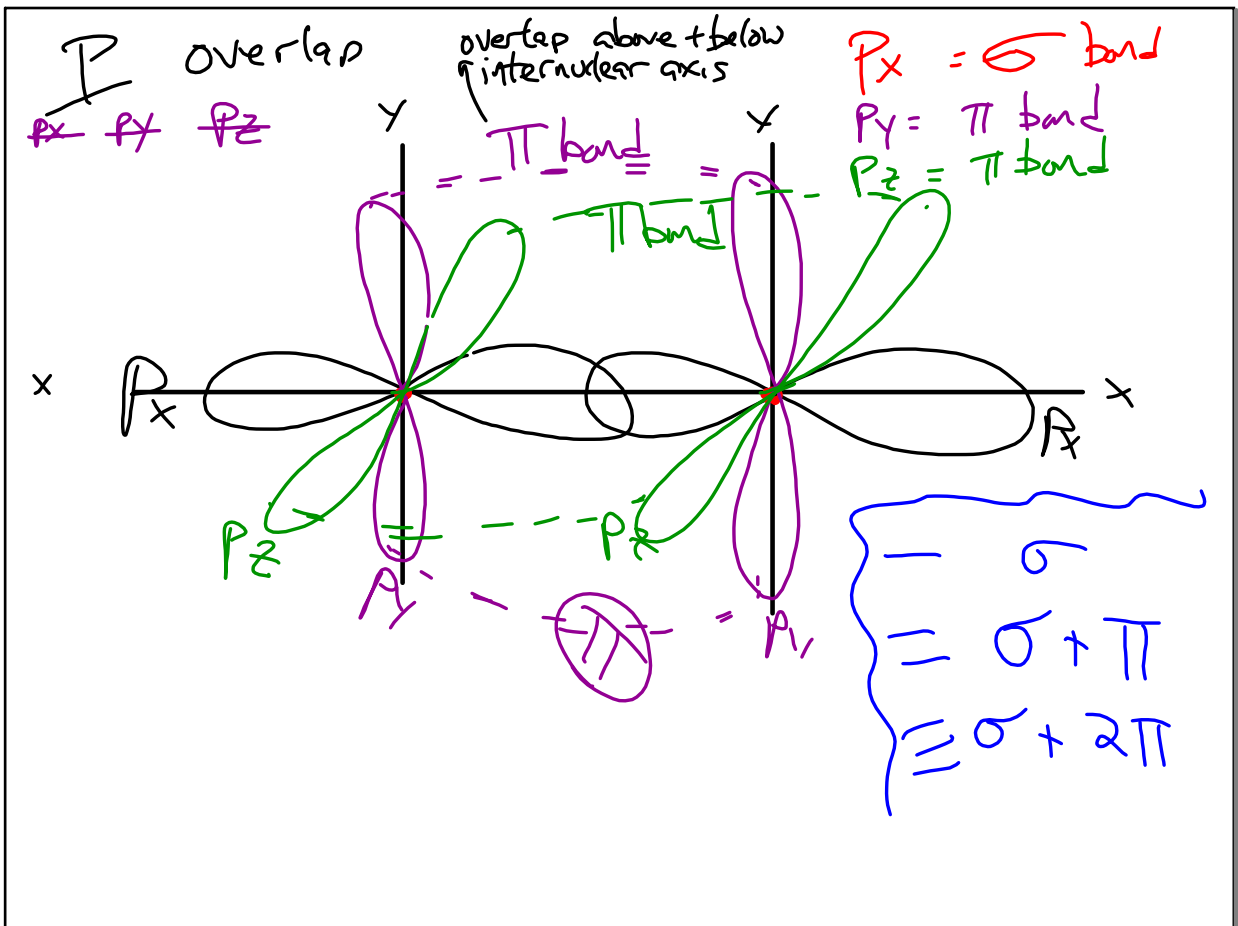
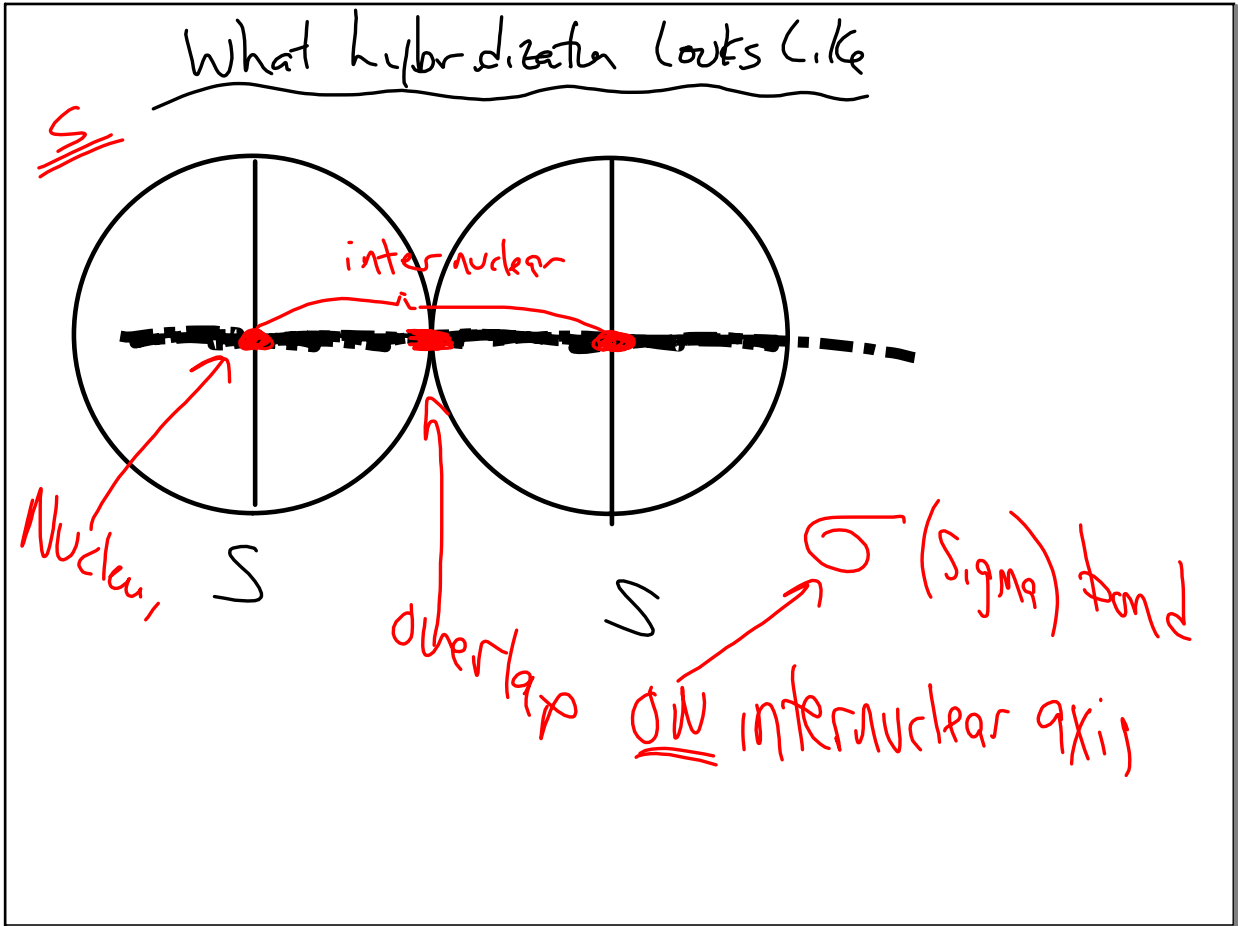
~~$NCl_5$~~   
 We know N + P same group  
BUT  
 $N = [He] 2s^2 2p^3$   
  
NO 2d  
 Can't hybridize!  
 All arrows UP!  
 No where to put 2nd 2s p-

Nov 21-8:49 AM

$SF_4$   
 $6 + 4(7) = 34 - 8 = 26 - 24 = 2$

4b  
 1nb  
 $sp^3d$

Nov 21-8:58 AM



para mag lab

p 3,4,5 e- configs

Nov 21-9:16 AM