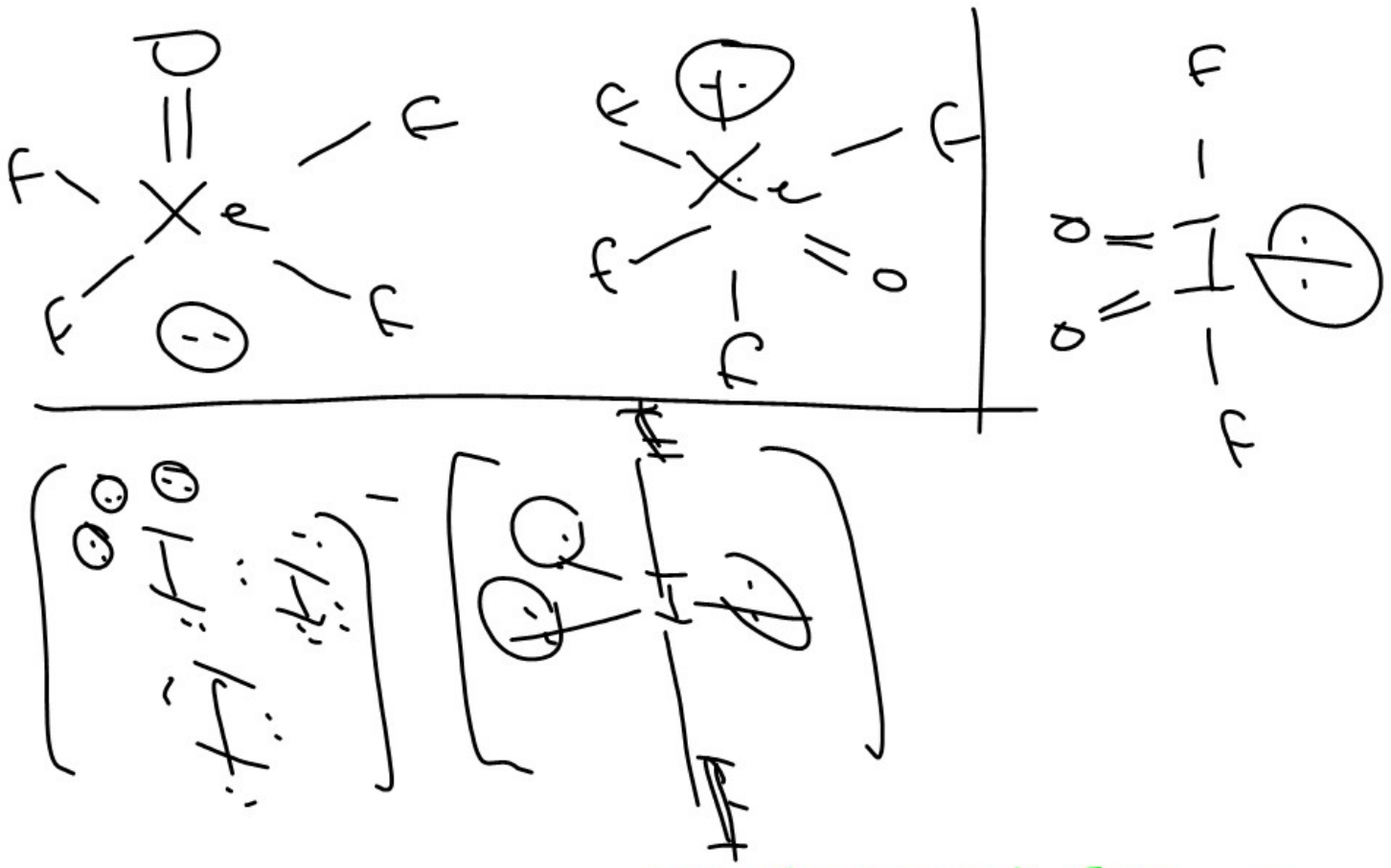
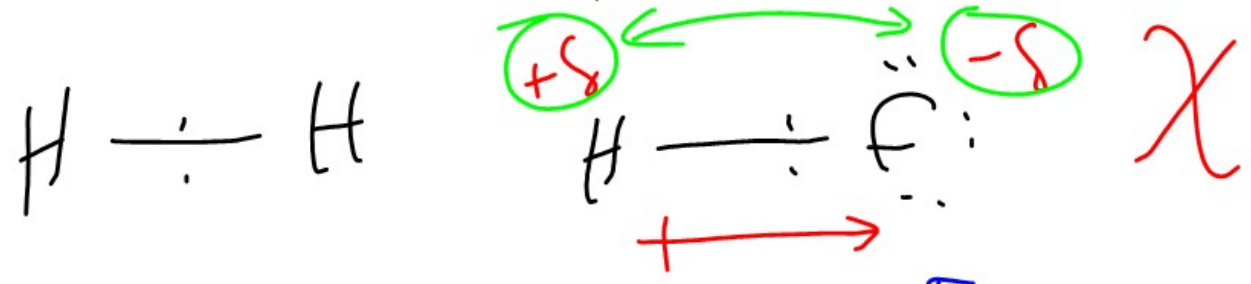




B.E. H—F :

Expected : $\frac{\text{B.E. H—H} + \text{B.E. F—F}}{2}$

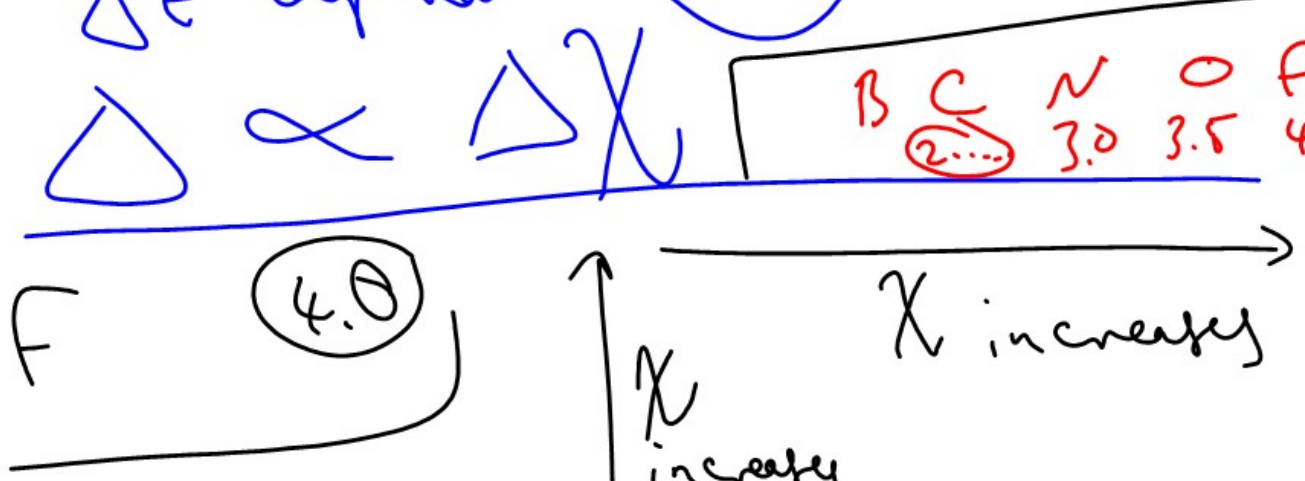
Experimental : B.E. $_{\text{exp.}}$ > B.E. $_{\text{expected}}$

ΔE = B.E. $_{\text{expt.}}$ − B.E. $_{\text{expected}}$

ΔE depends on $\delta^+ \; \delta^-$ charge

$\Delta \propto \Delta \chi$

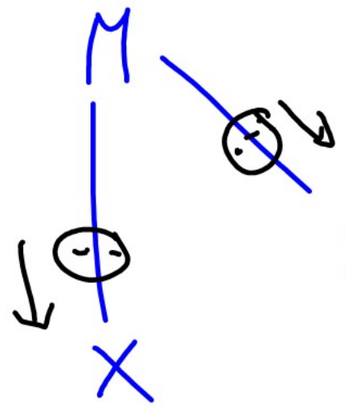
B	C	N	O	F
	2.5	3.0	3.5	4.0



Mulliken : (A) $\chi = \frac{E_A + I.E.}{2}$

Allred & Rochow $\frac{Z_{eff}}{r^2}$

Pearson $\chi = \frac{E_A + I.E}{2}$

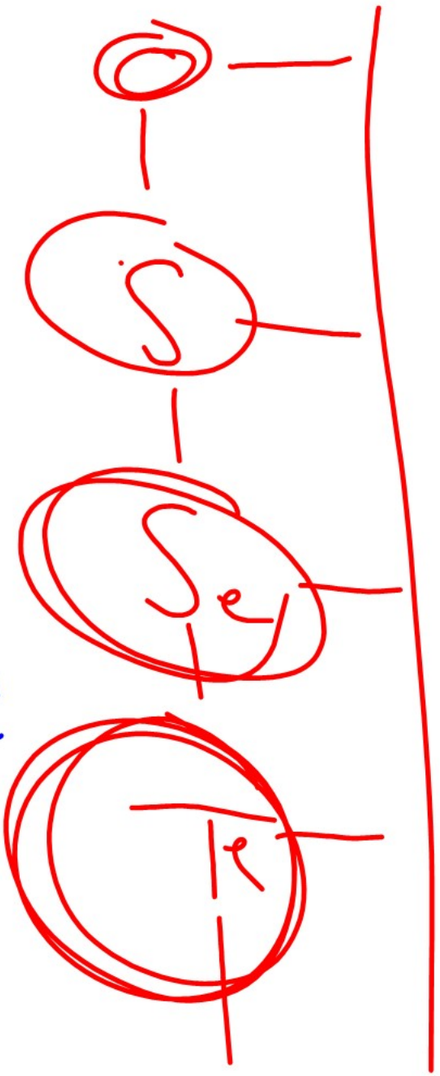


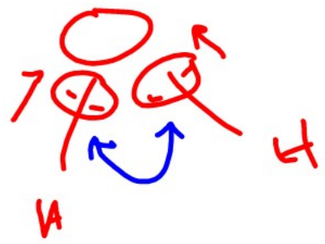
	X—P—X		
PF_3	97.8	OSF_2	97.3
PCl_3	100.3	$OSCl_2$	96.2
PBr_3	101	$OSBr_2$	98.2

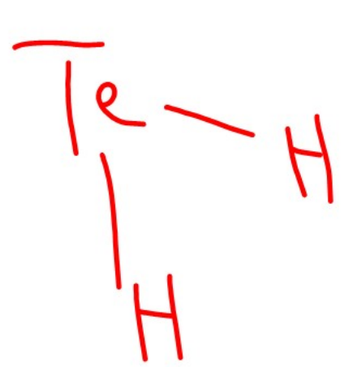
$\sigma = \int_{Br}^{Br}$

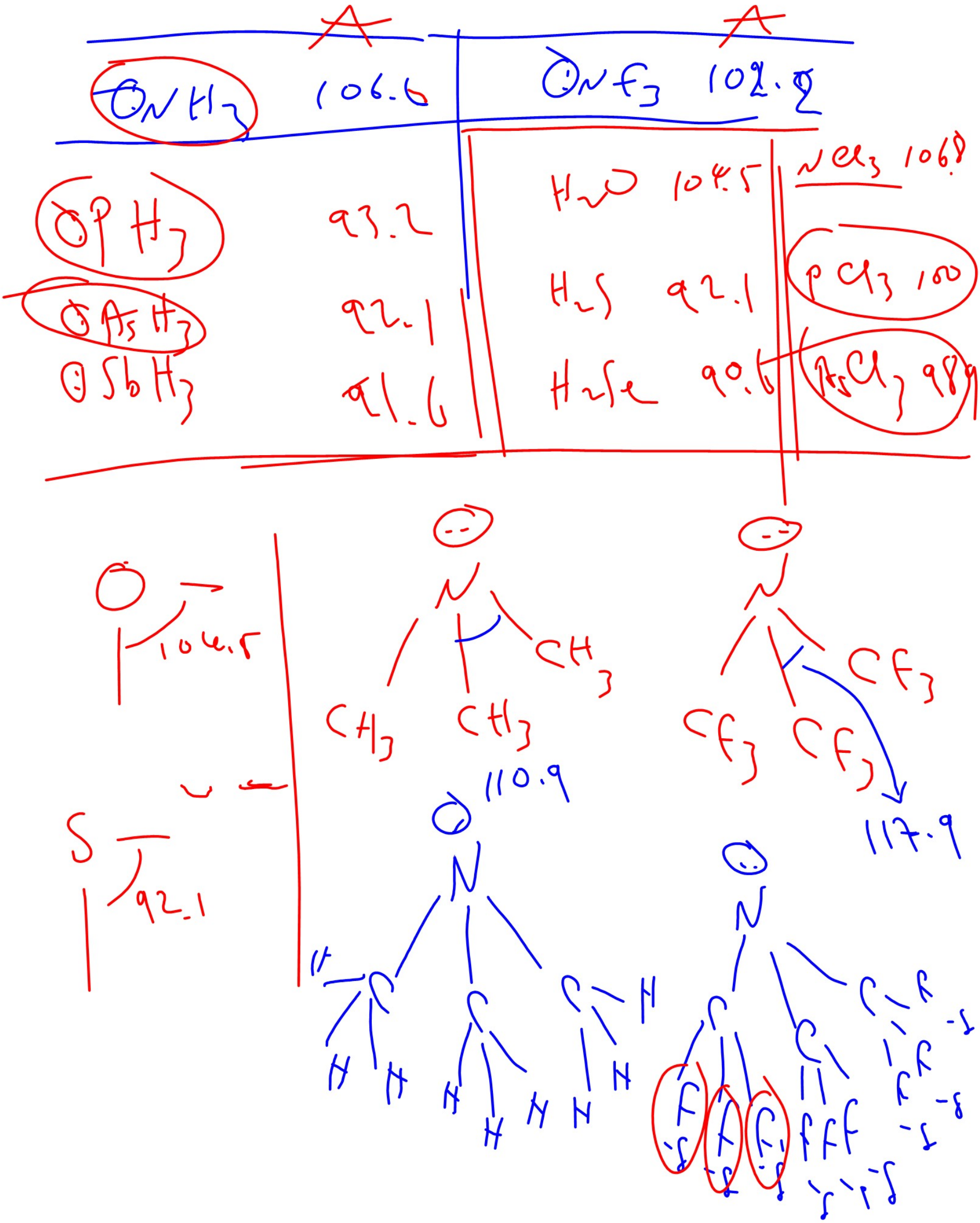
H_2O	104.5°
H_2S	92.1
H_2Se	90.6
H_2Te	90.2

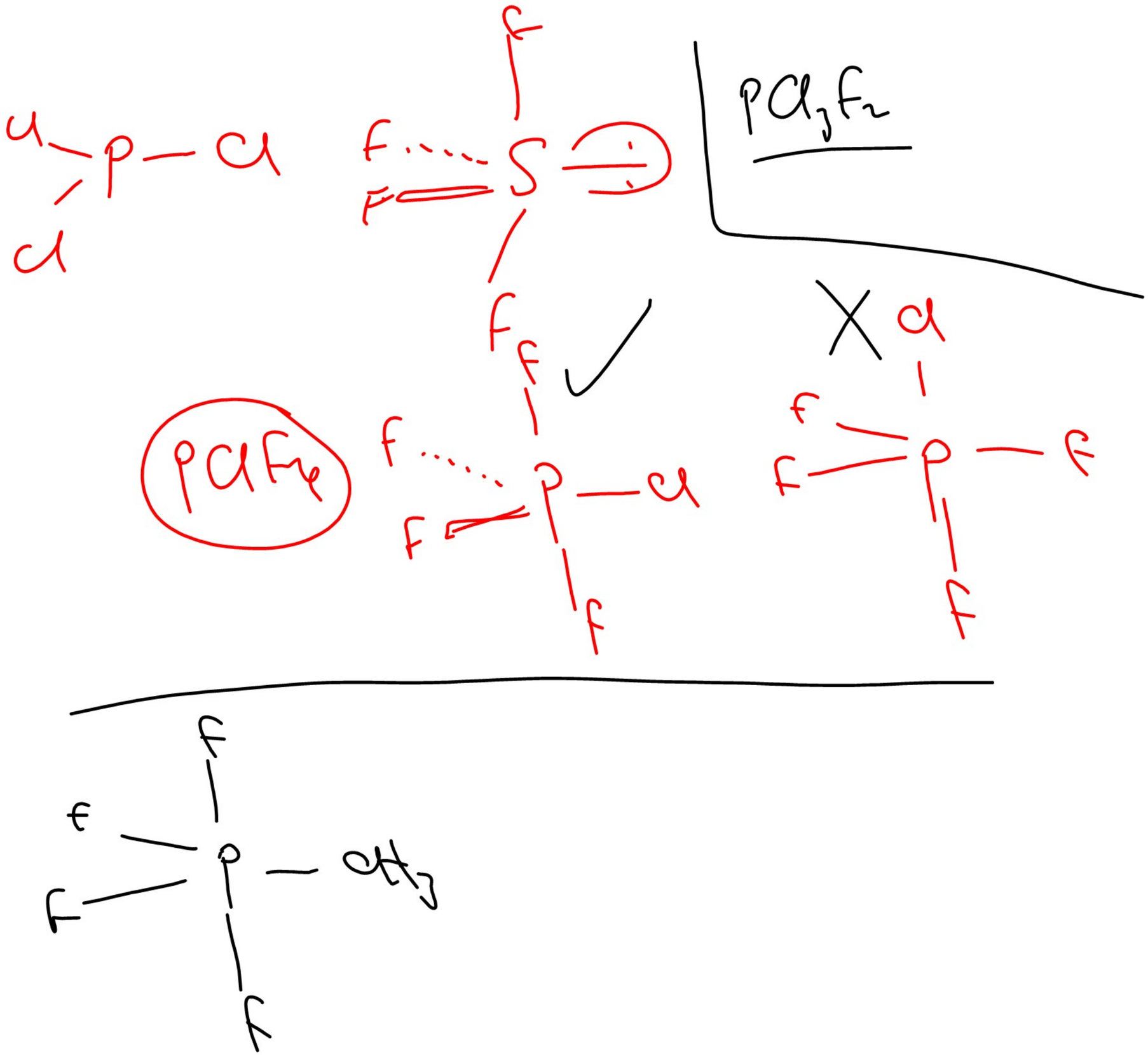
① Lone pair
② Size of M
③ χ



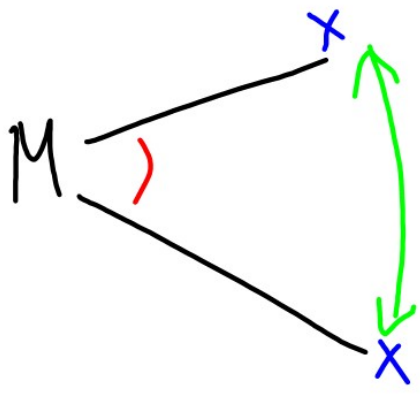


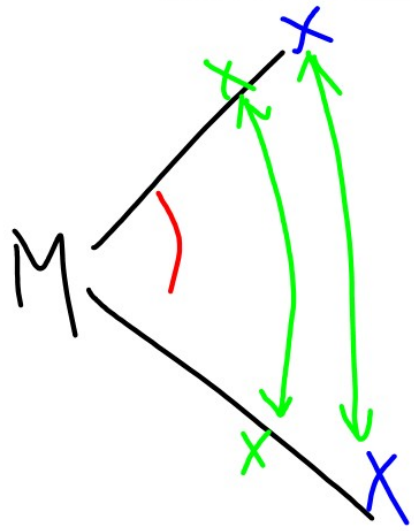



NH_3 106.6
NF_3 102.5
PH_3 93.2
AsH_3 92.1
SbH_3 91.6
H_2O 104.5
H_2S 92.1
H_2Se 90.6
NCl_3 106?
PCl_3 100
$AsCl_3$ 98?
104.5
92.1
110.9
117.9


PCl3F2
PClF4

Ligand Close Packing (LCP)





For a series of molecules with same (M) non bonded distances Conf A