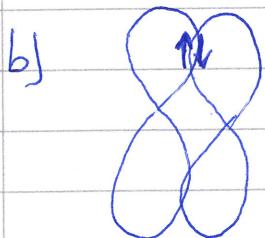
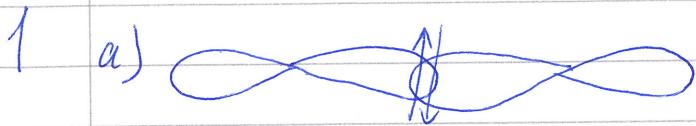


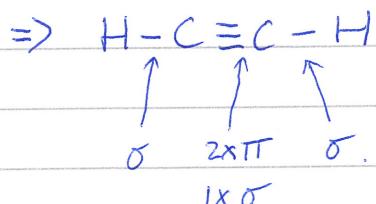
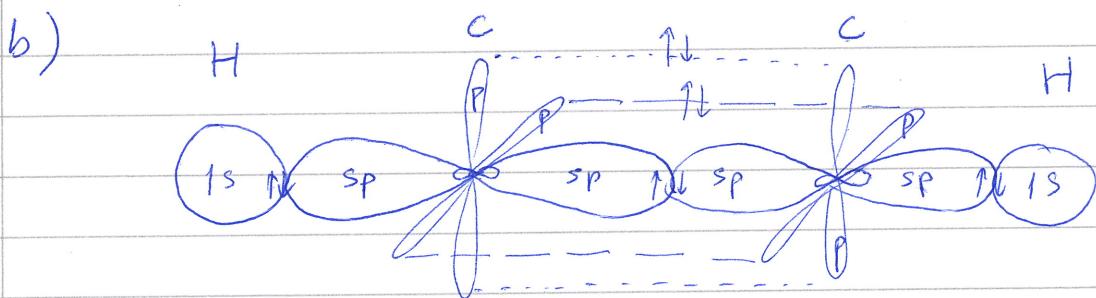
Uitwerkingen Opgaven Fys Chem week 2



c) σ -bindingen ontstaan door frontale overlap van 2 "co-axiale" atoomorbitalen waardoor de overlap groot is.
 π -bonden ontstaan uit twee zijdelingse, "para-axiale" atoomorbitalen. Hier is de overlap minder sterk.

d) Nee. s-orbitalen zijn radiaal in alle richtingen gelijk. Vanuit de internucleaire as zal de binding tussen twee s-orbitalen altijd een s-orbitaal resulteren, en dat is dus een σ -orbitaal.

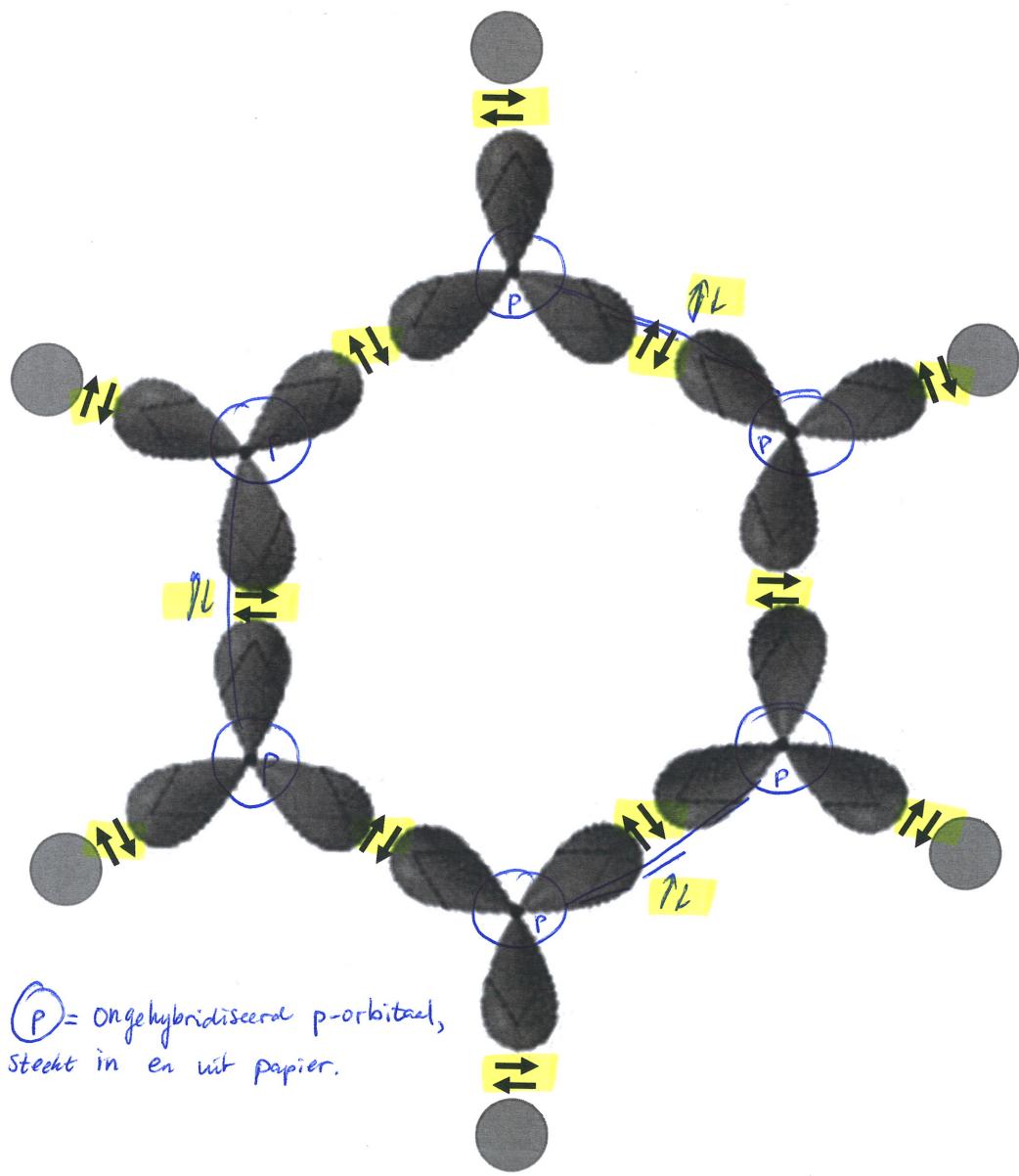
3 a) sp hybridisatie



c)

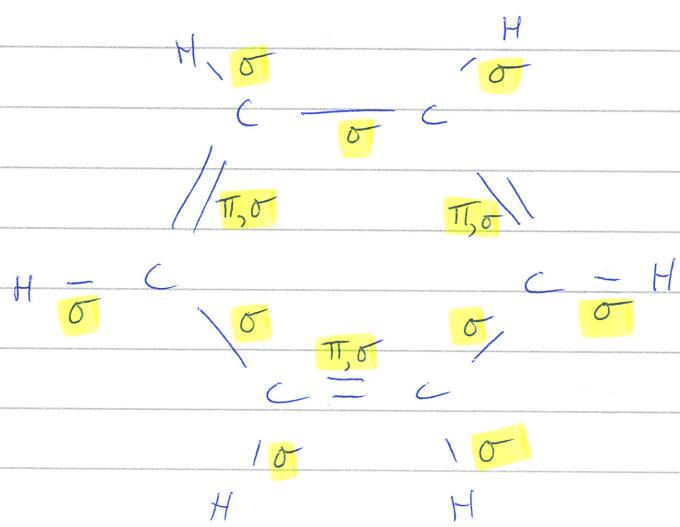
4 a) sp^2

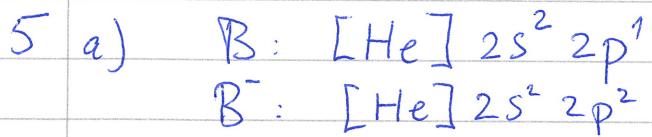
b)



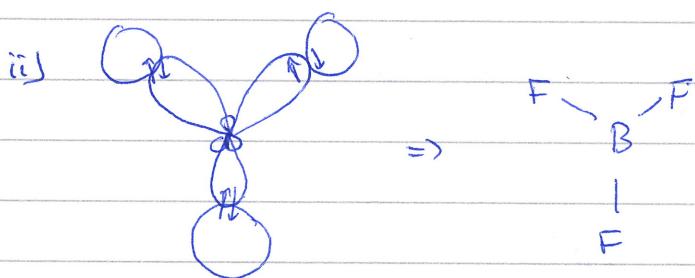
(P) = Ongehybridiseerd p-orbitaal,
steekt in en uit papier.

c)



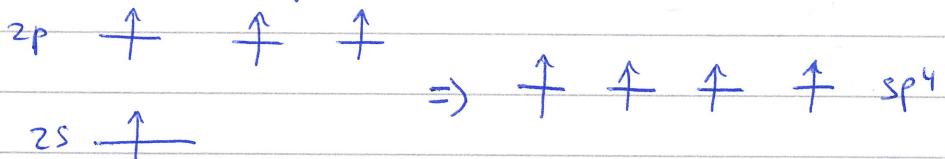


b) ij Om B 3 bindingen te laten maken moet er promotie en sp^2 -hybridisatie plaatsvinden

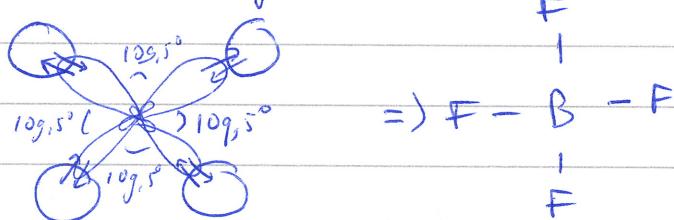


iii) allemaal σ -bond.

c) ij om B^- 4 bindingen te laten maken moet er sp^3 -hybridisatie plaatsvinden.



ii) tetraedrische geometrie:

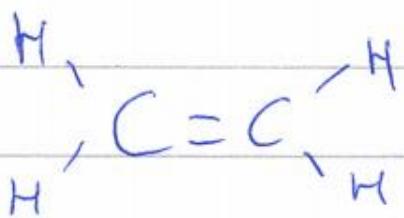


iii) allemaal σ .

6 ij 2x een s-orbitaal, σ -bond, antibonding

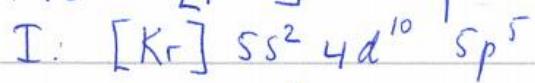
ij 2x een p-orbitaal, σ -bond, bonding

ij 2x een p-orbitaal, π -bond, antibonding.

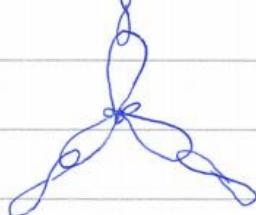


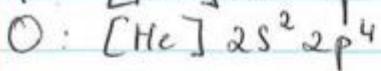
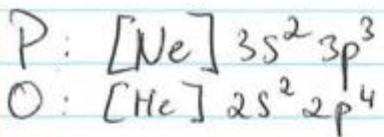
sp^2 gehybridiseerde C's.

B

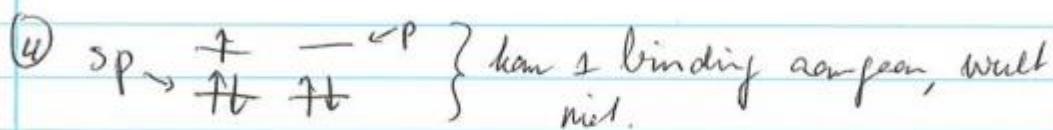
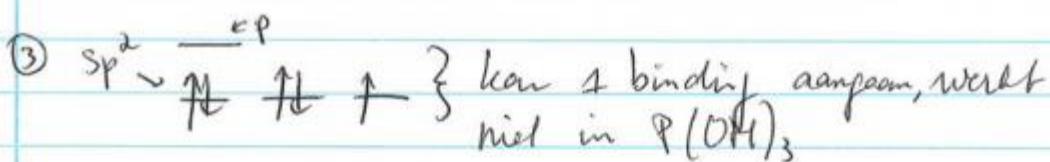
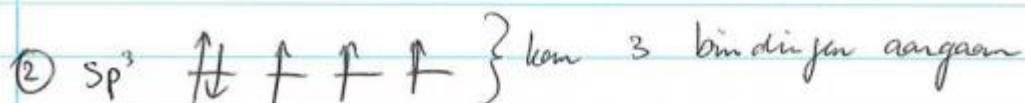
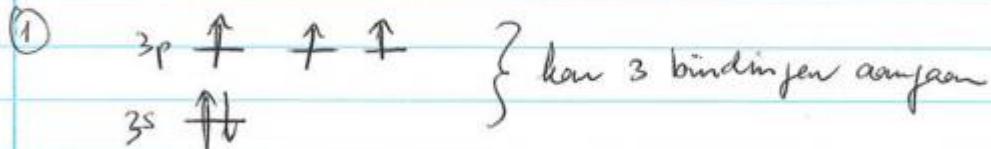


om Al 3 bindingen aan te laten gaan moet Al wel sp^2 gehybridiseerd zijn.





P gaat 3 bindingen aan, dus de opties zijn



Energie zal liggen bij sp^3 , dus F ondergaat sp^3 hybr.

O gaat 2 bindingen aan, dus alleen sp^3 en ongehybr.-kom.
 sp^3 lagt energie,
dus beide O en P sp^3 hybr.

