

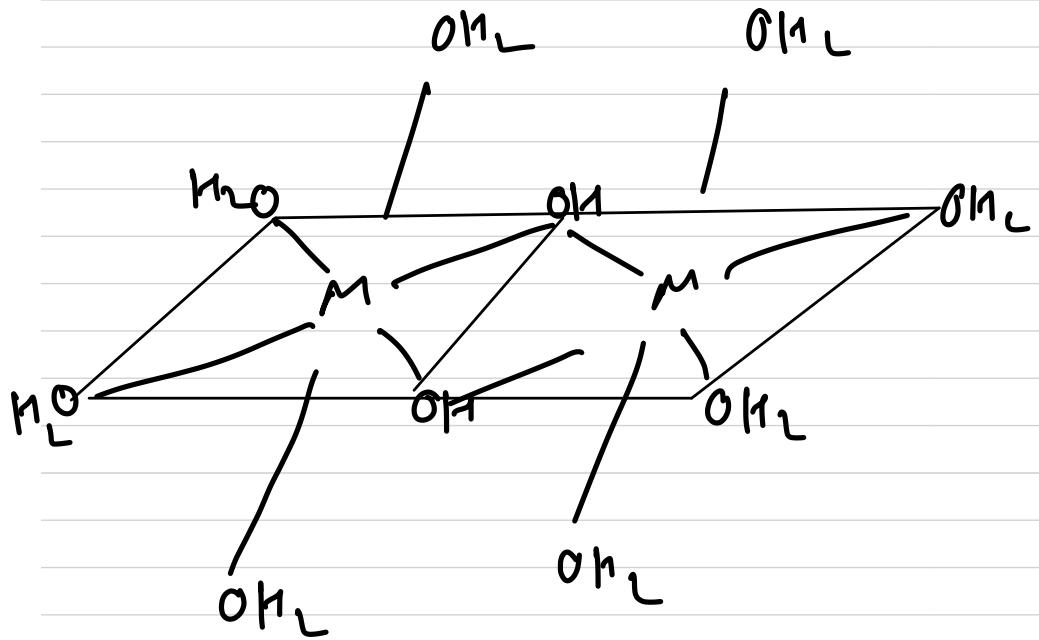
①

fetaquaquiron(II) di-l*l*-hydroxide tetraqua
iron(II) chloride

② Di-l*l*-hydroxido bis(fetaquaquin(II)) chloride

③ di-*l*-hydroxido octaqua d'iron(II) chloride

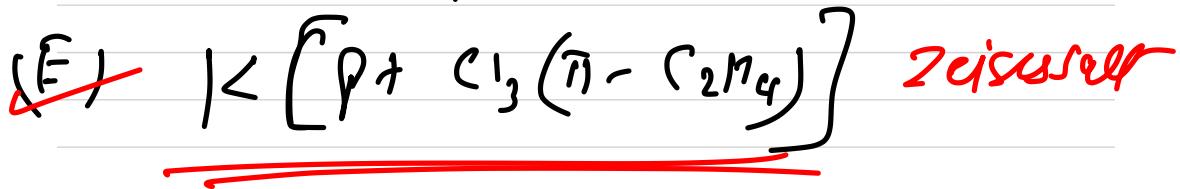
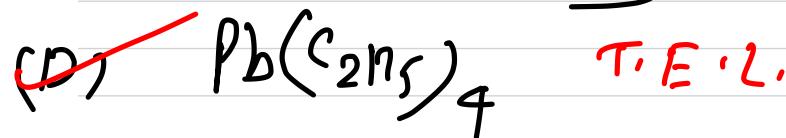
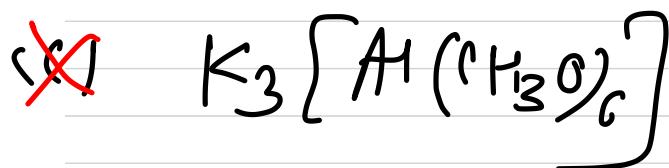
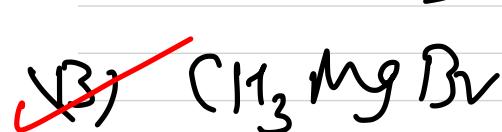
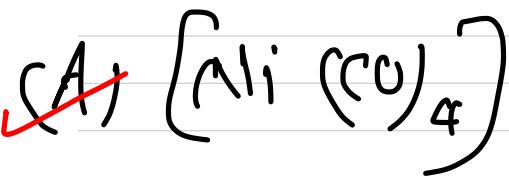
④ bis(Dihydroxido fetaquaquin(II)) chloride



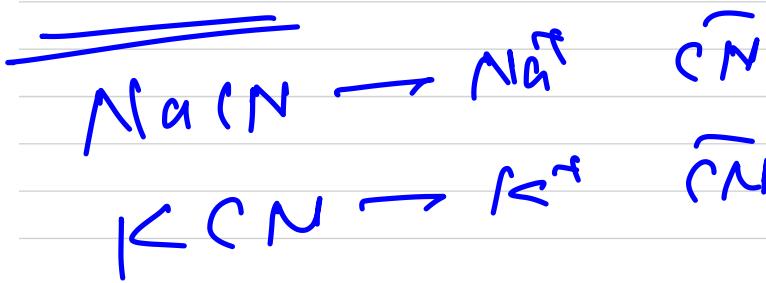
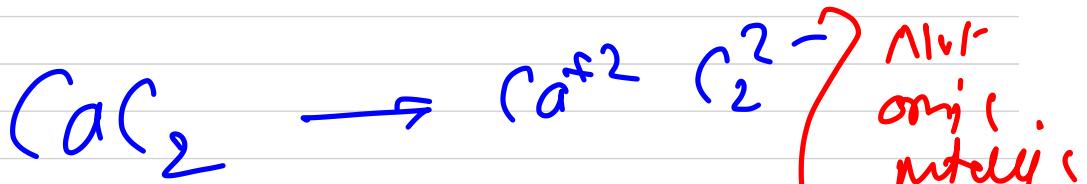
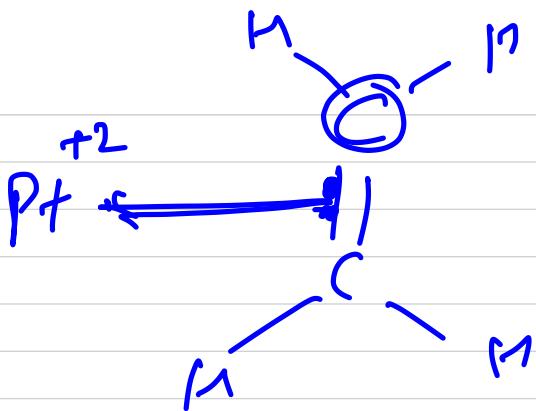
L^-

L^-

Q which is organometallic cat.

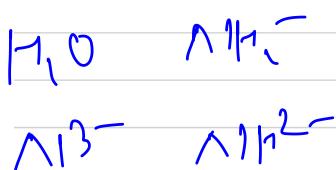
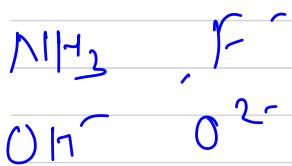


Metal-Carbon Linkage



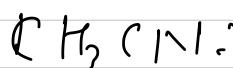
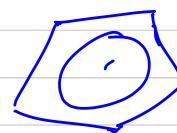
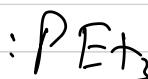
Classification of ligand as the basis of bonding

Classical



Non classical
(π -acid ligand)

(σ -donor
 π -acceptor)



CsIg^- = cyclopentadienyl anion



(I) σ -donor π -acceptor :-

SEE Ad.

~~Q~~ C-O B.L. in CO is 1.128 \AA
~~2006~~ What C-O length is observed
in $[\text{Al}(\text{CO})_4]^{\circ}$

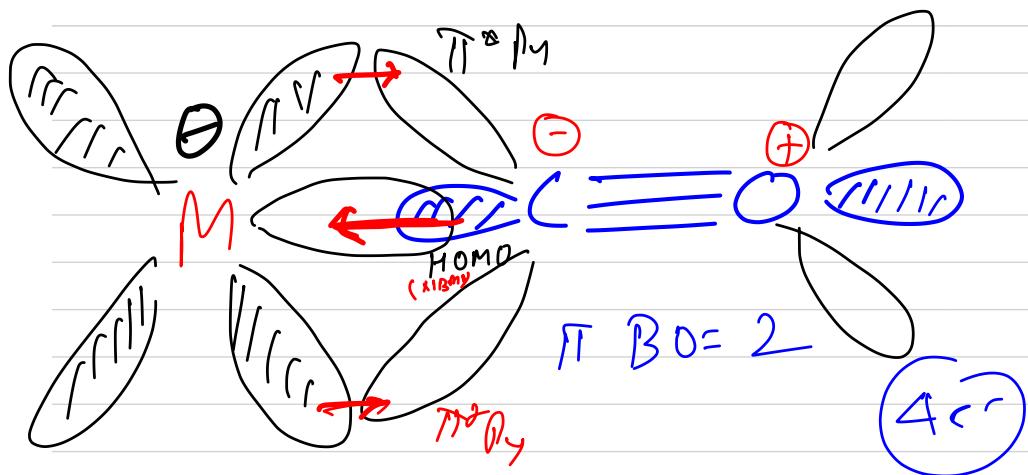
(A) 1.128 \AA

(B) 1.118 \AA

~~C~~ (C) 1.158 \AA

(D) 1.78 \AA



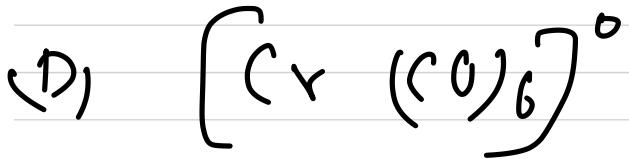
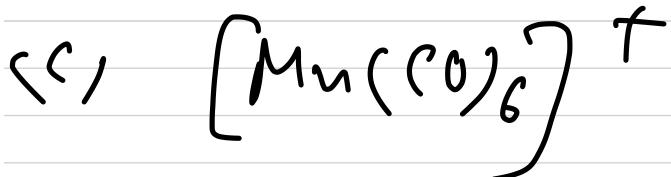
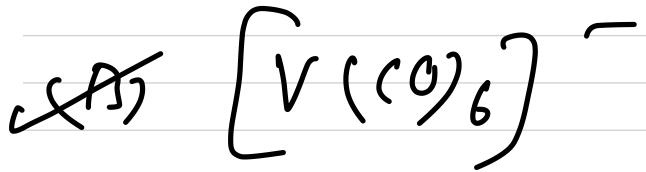
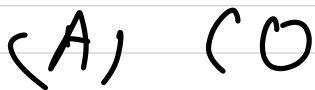


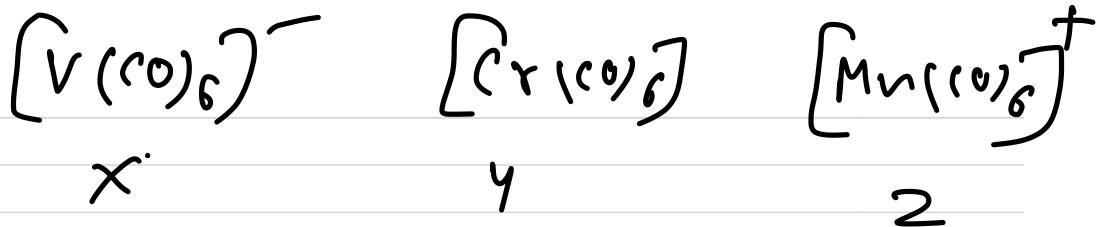
(σ - donor π - acceptor)

(Synergic band)

(Back band)

2007
(A) which have lowest C-O
Bond order





1. C-O BL = $x > y > z$

2. C-O B.E = $x < y < z$

3. C-O B.O = $x < y < z$

4. N. of e⁻ = $x = y = z$

5. π -chartzin = $x > y > z$
Metal carbon Bond =

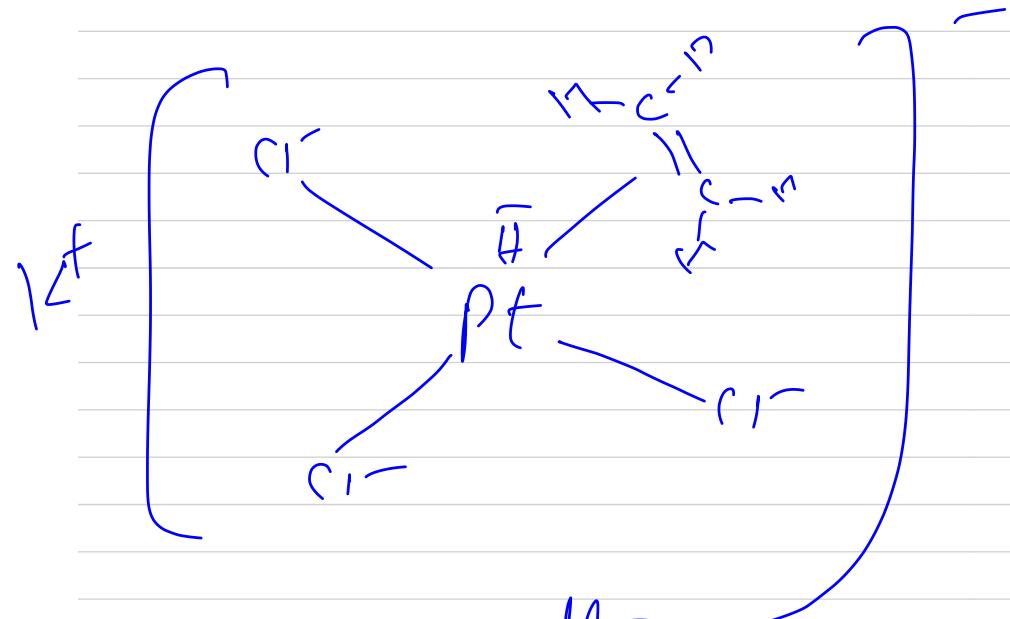
C. E. of IR reg. to Struc. C-O = $x < y < z$

7. λ of IR " " " C-O = $x > y > z$

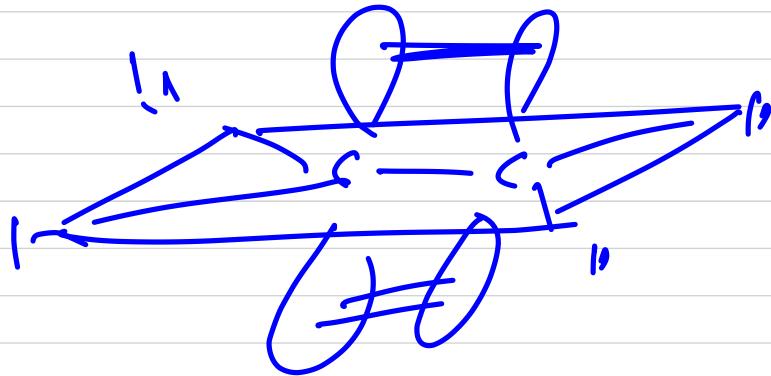
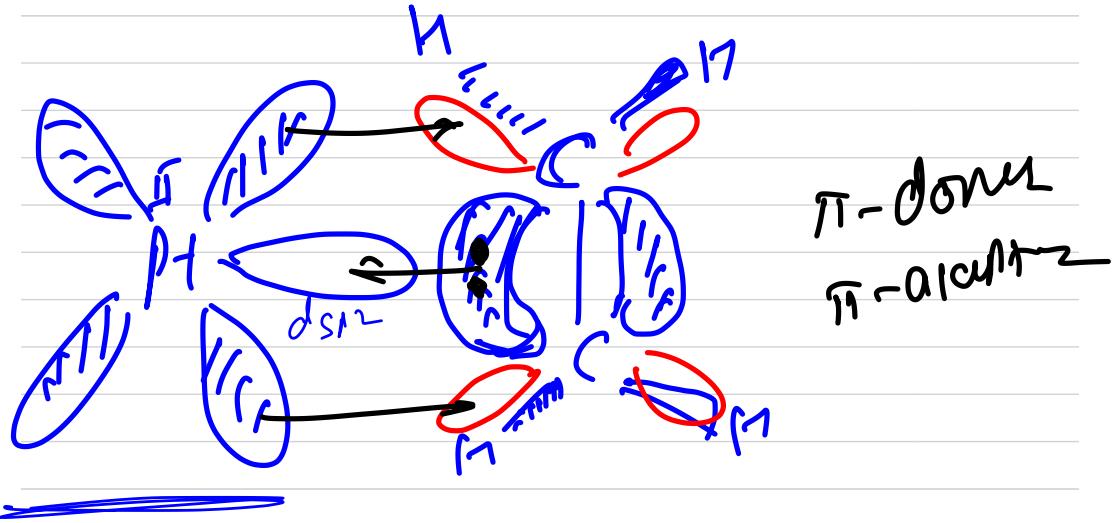
8. V in IR " " " C-O = $x < y < z$

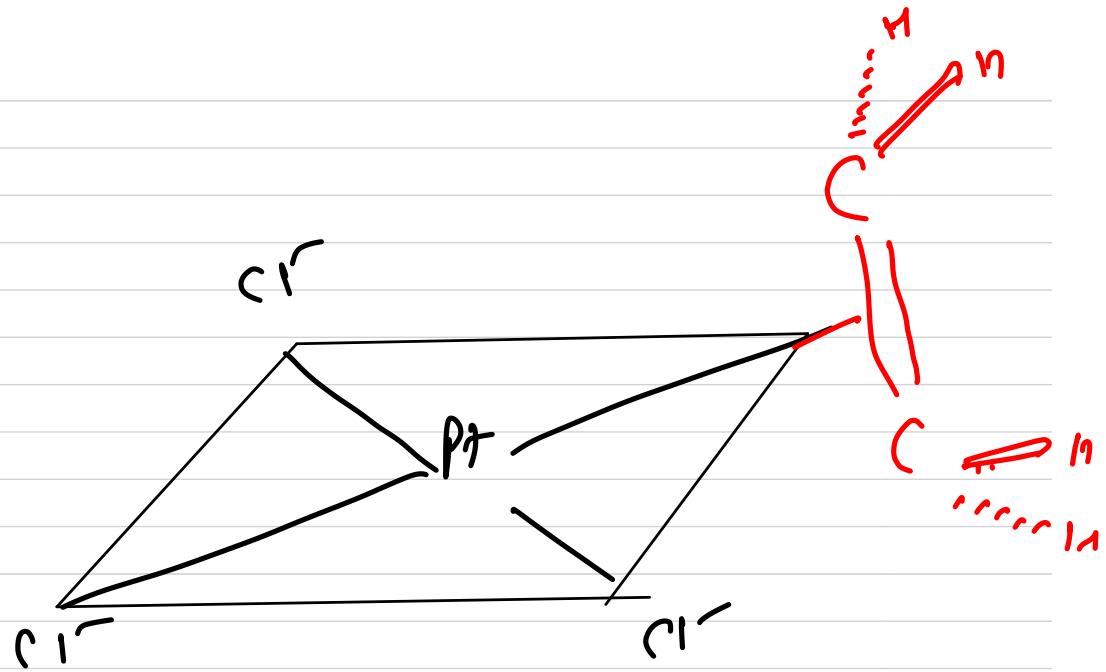
π -donor π -acceptor:-

$$K \left[PtCl_3(\pi-C_2H_4) \right]$$

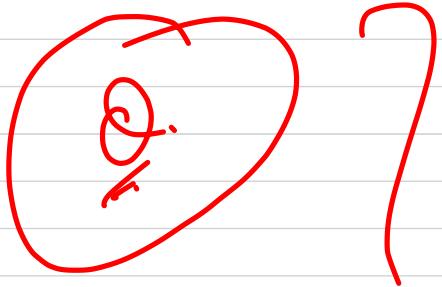
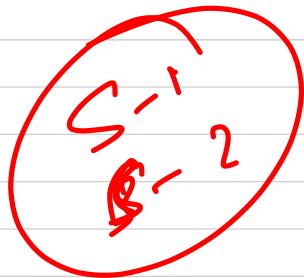


Zugeschafft

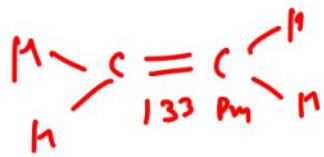




reisn salt

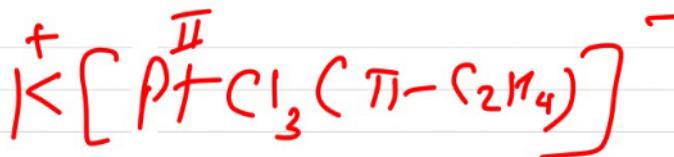
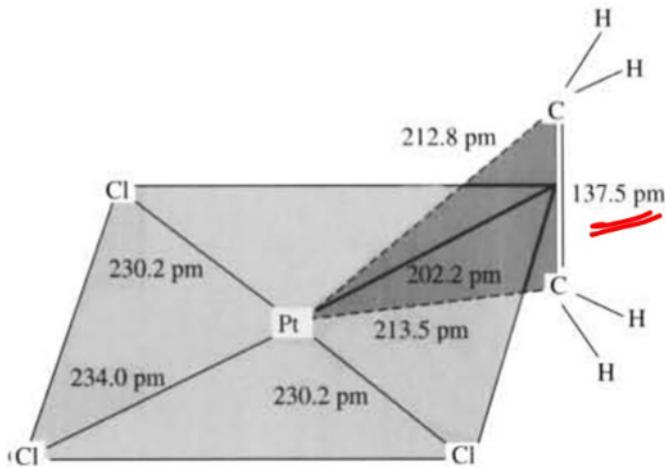


1



§19.7.2

Dihapto ligands



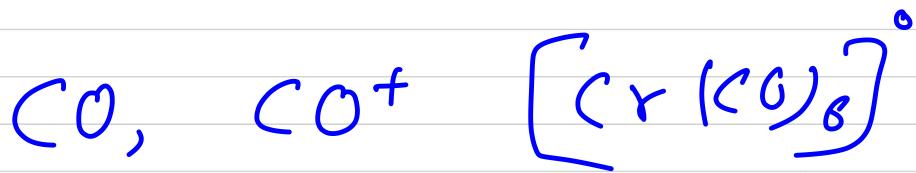
Potassium tetrachlorido(η^2 -ethene)platinum(II)

Q. In $[\text{Fe}(\text{CO})_5]$ Metal

Carbon bond has -

- (A) σ bond only
- (B) π bond only
- (C) $\sigma \& \pi$ bond
- (D) only ionic bond

Q. Charge then in Iron
C-O bond length -



Q. Matching:-

(F)
ligand



(II)
orbital of ligand
involved in synergic bond
to accept electrons from metal

(I) σ

(Q) π^*

(P) σ

Q. which is having highest π -acceptor ability -



Q. Which Complex have Higher $C=O$ bond Energy -



Q. write IUPAC Name

