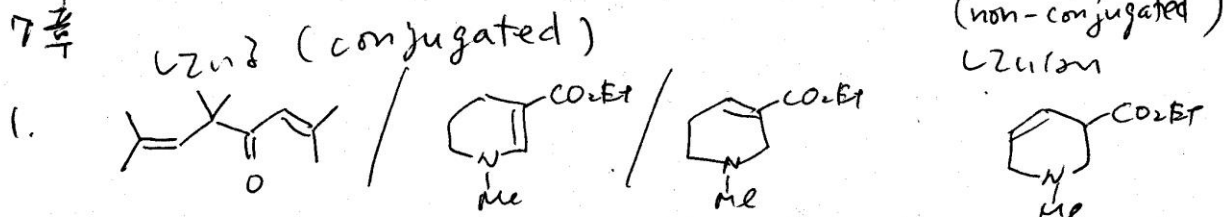
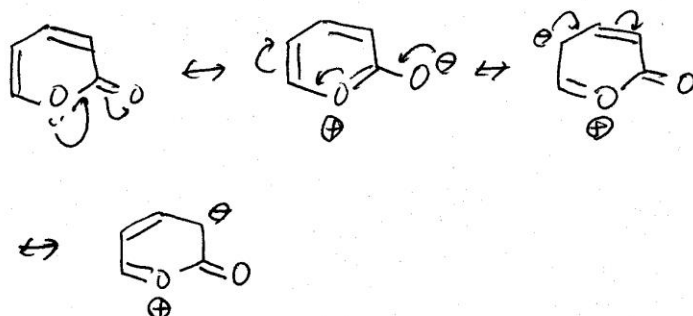
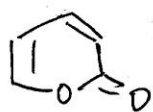
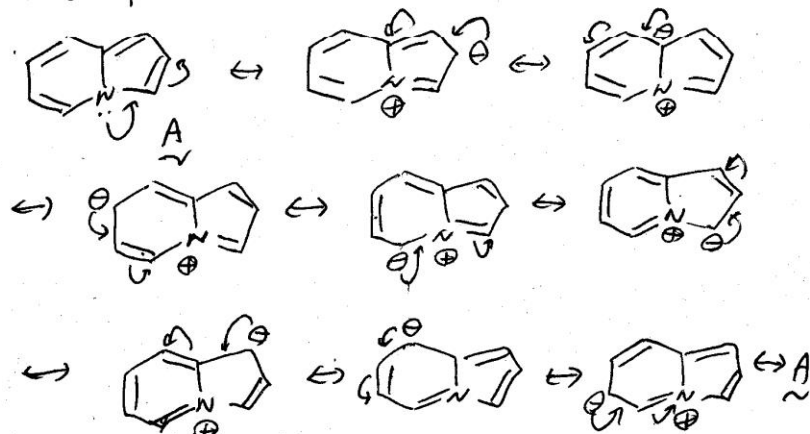
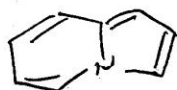


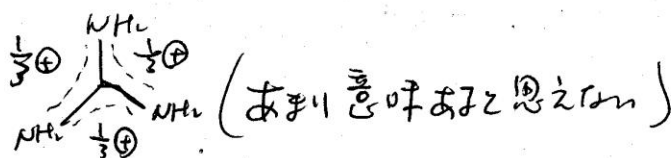
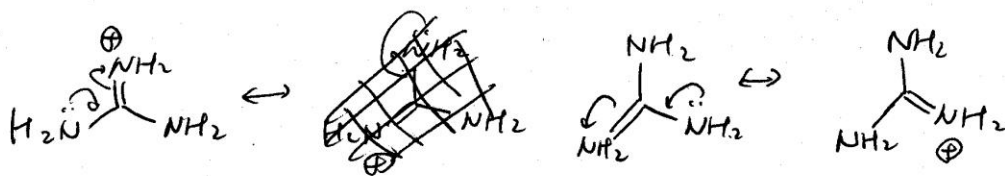
Chap. 7
7章



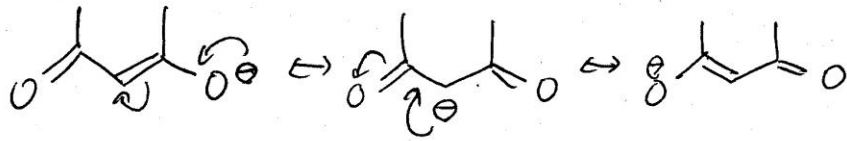
2. 共鳴の定式構造を示す shown with resonance structure



3.

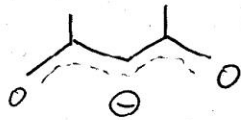


seems not so significant

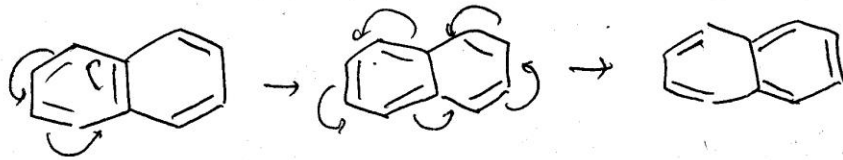


(C=C⁻ O=C⁺)
負の電荷

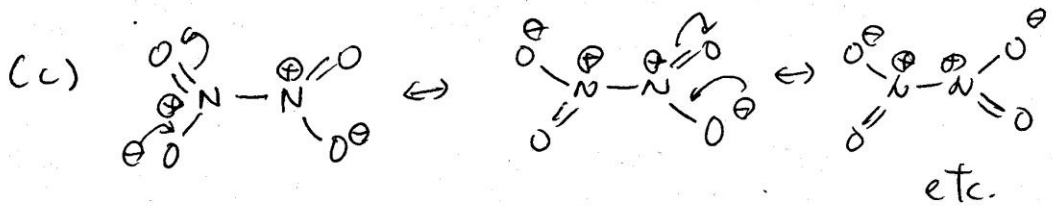
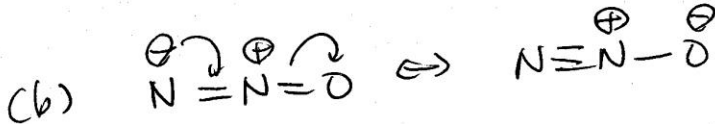
less contributing structure because \ominus on C



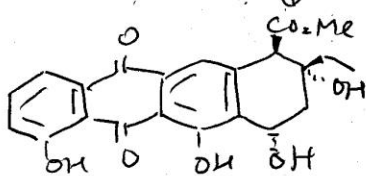
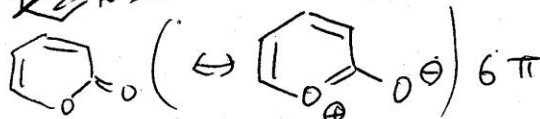
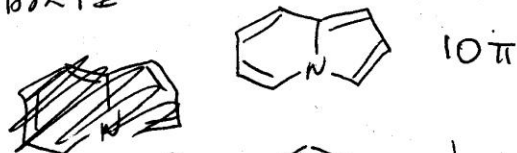
結構は... I'm not sure...



4.



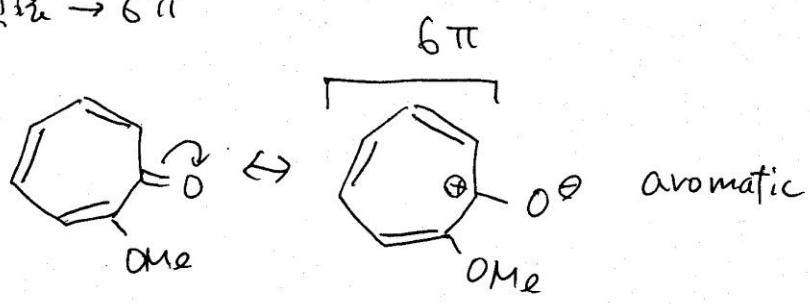
5. 芳香族性



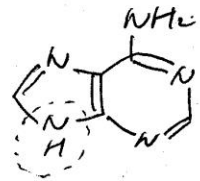
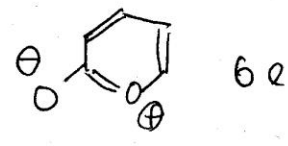
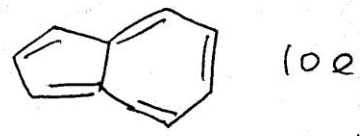
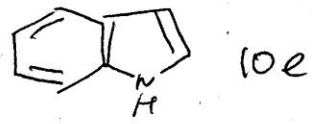
左から1番目, 3番目が6 π
 2番目は non-aromatic

左の6員環 $\rightarrow 6\pi$

7員環

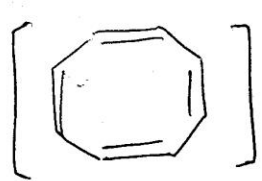


6.



only lone pair on nitrogen is involved (lone pair \in π -system) (2 λ + 3 σ + 1 π = 6 π)

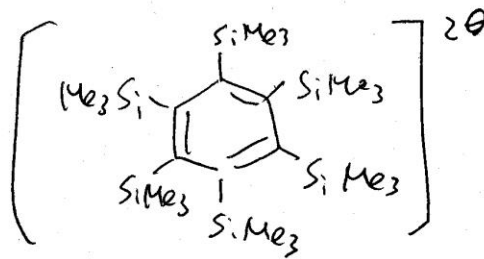
7.



π は 10e \Rightarrow

possibly planar ほぼ平面

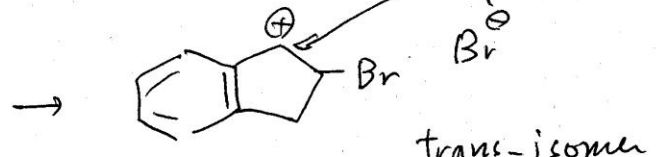
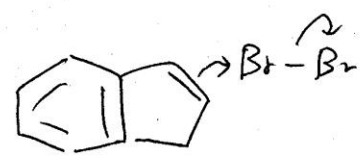
(C-C 相当不安定な 2e 内角 135° は相当不安定) actually it is considerably unstable



8e \Rightarrow 非平面 non-planar

(実験例あり) there is an experimental evidence

8.



trans-isomer

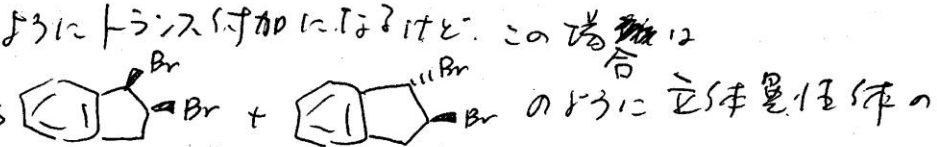
付加物



この問題の意図は、普通は

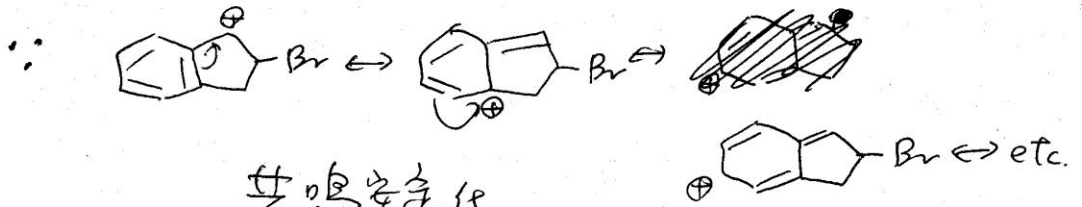
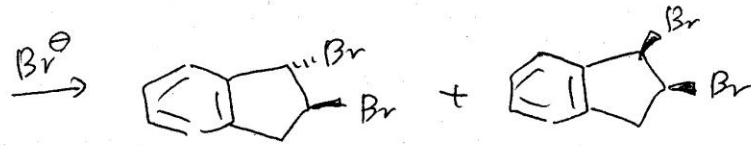
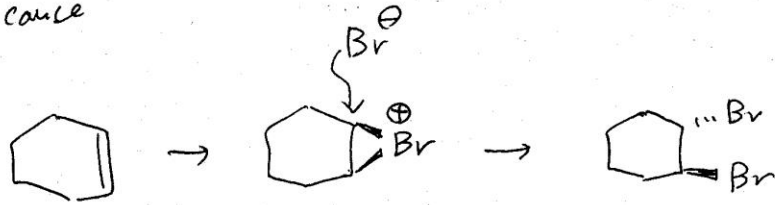


mixture of diastereomers



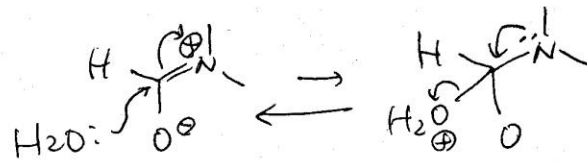
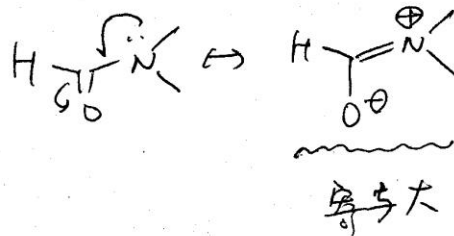
よりにトランス付加にはりて。この場合は mixture of diastereomers のように立体異性体の混合物にはり、といふことかと思ふ可。

Because
理由



共鳴安定化
Stabilization by resonance

9.



N is a lone electron (pair) donor
∴ H₂O⁺ is good leaving group

∴ 反応平衡は左へ移動する

Equilibrium moves the left