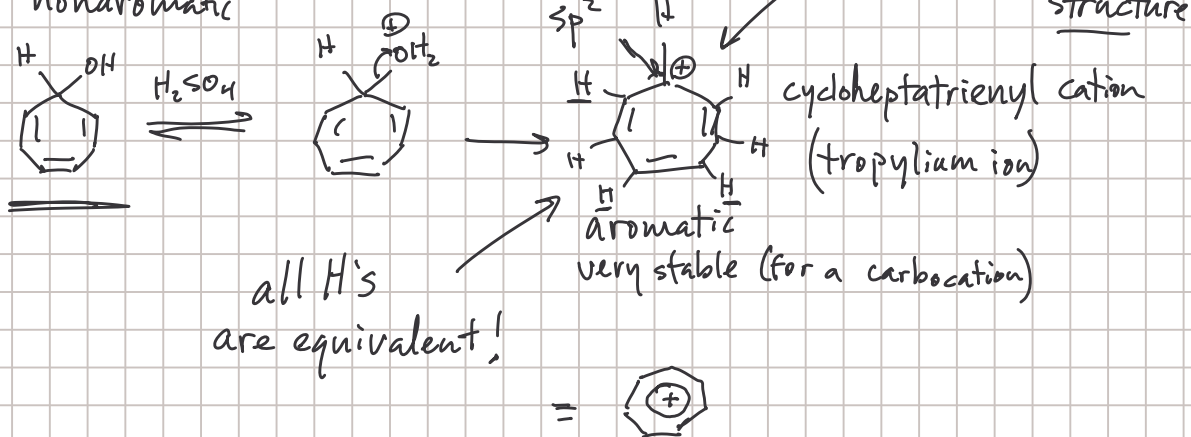
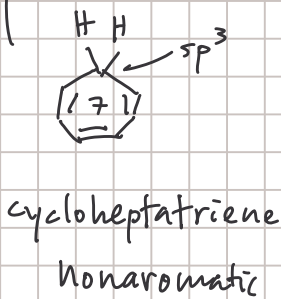
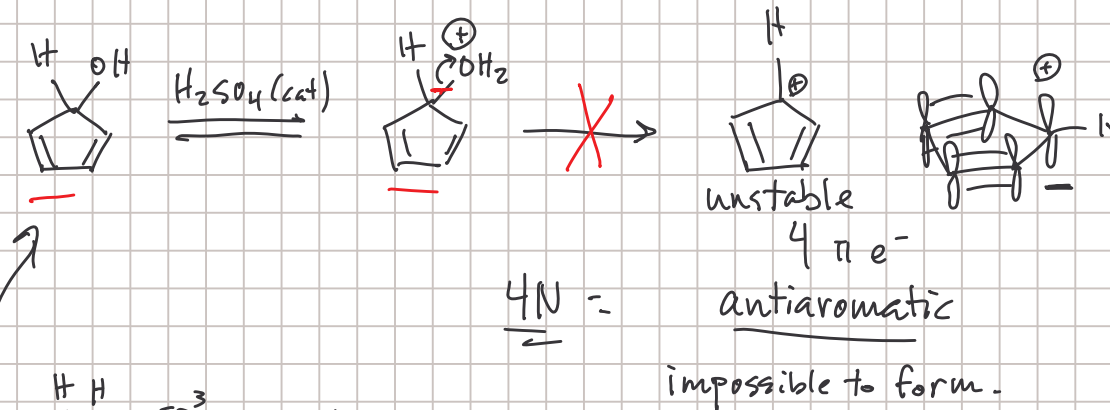
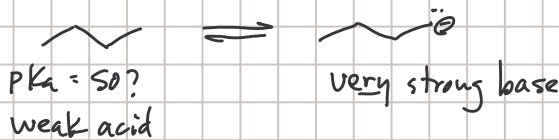
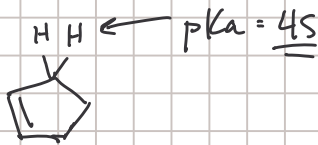
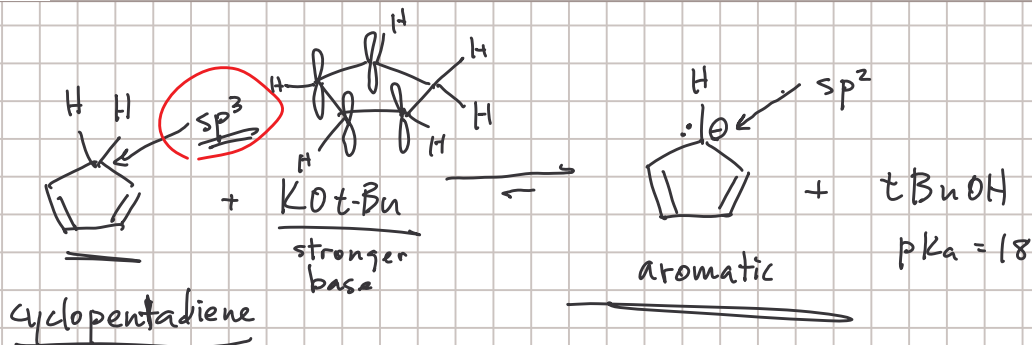
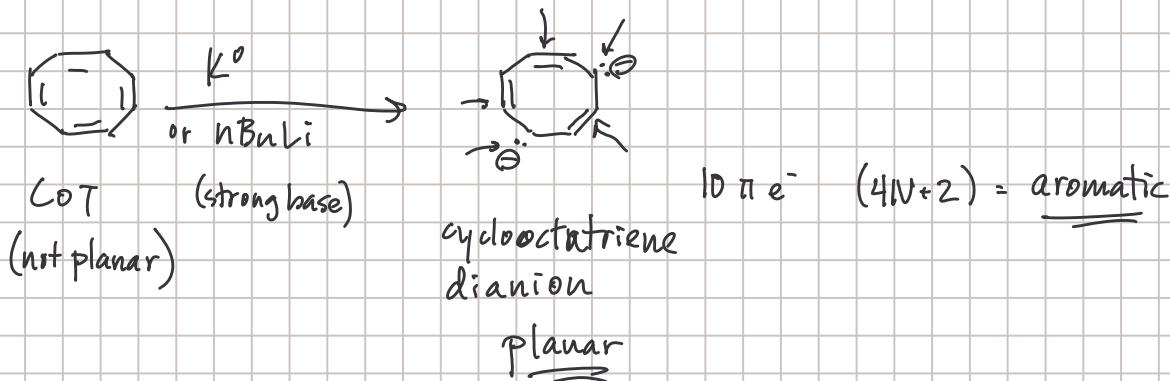


Ch 16

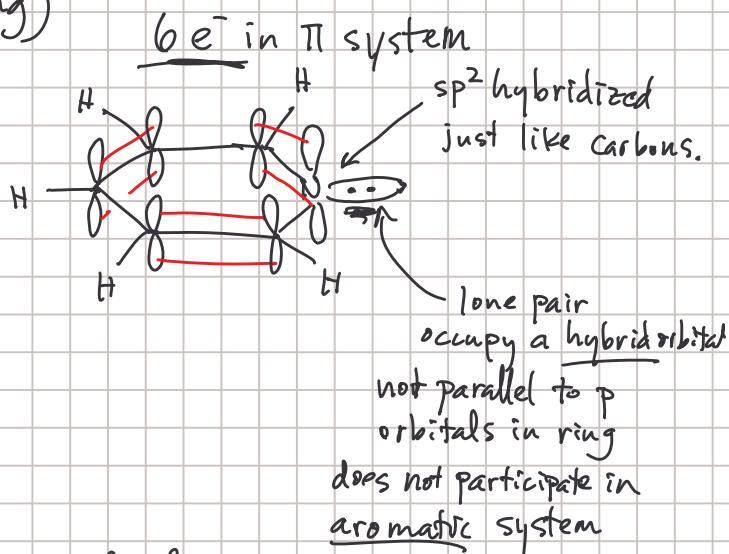
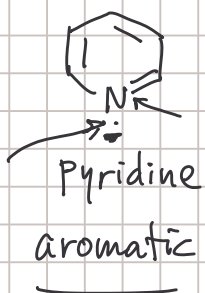
Note Title

2/13/2006





Heterocyclic aromatics (heteroatom-containing)



Pyridine aromatic

N is basic

$pK_b = \underline{8.8}$

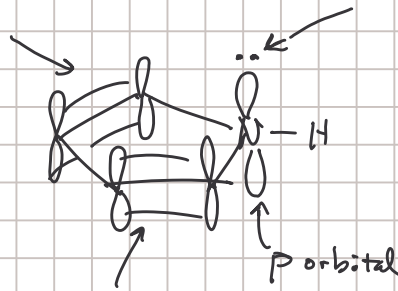
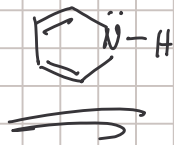
pyridinium ion still aromatic!

$pK_a = \underline{5.2}$

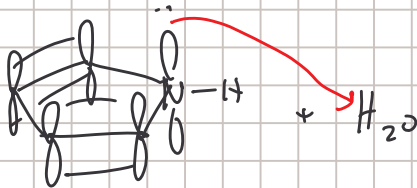
$pK_a + pK_b = \underline{14}$

 of conjugate pair

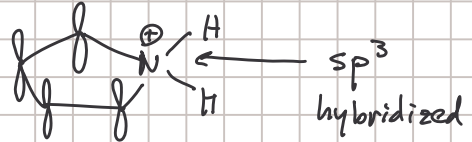
Pyrrole



6 πe^-
aromatic



aromatic $pK_b = 13.6$

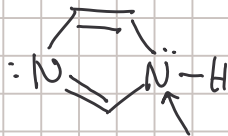


nonaromatic

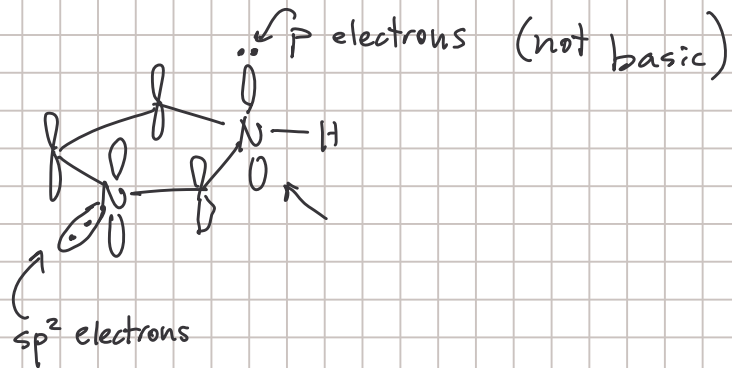
N in pyrrole is NOT basic!

$pK_a = 0.4$

Imidazole



one of N's is basic
the other is not.



basic