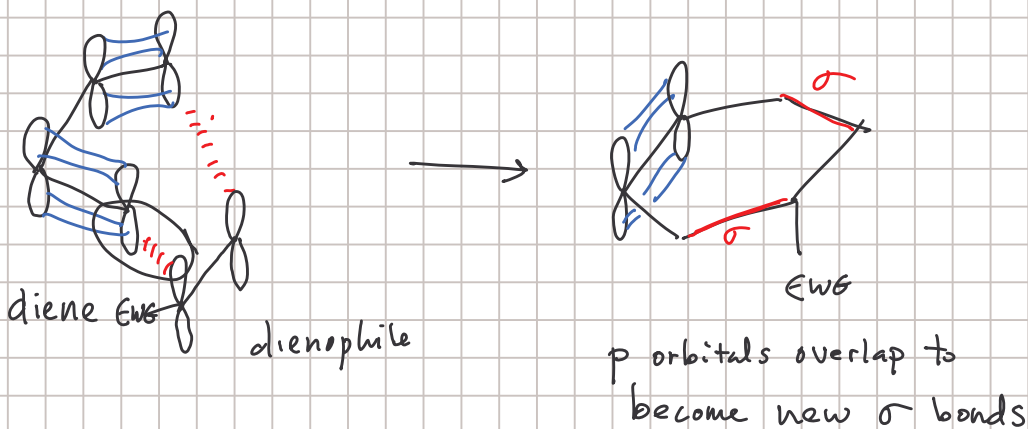
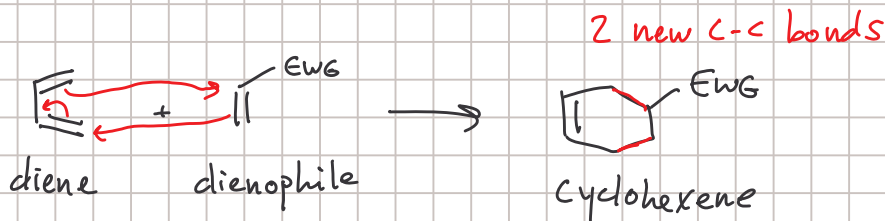


# Ch 15

Note Title

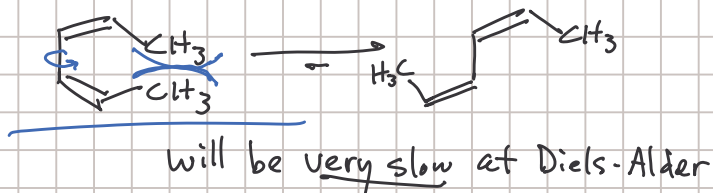
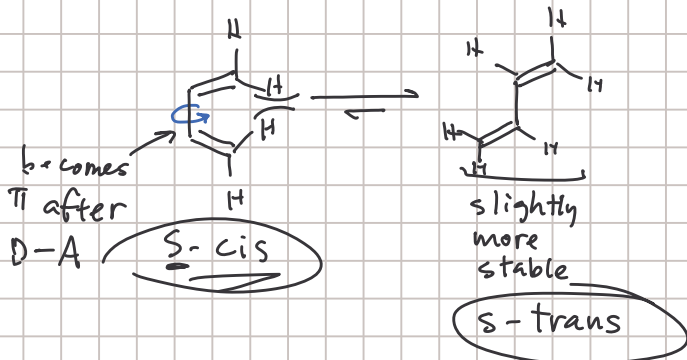
2/1/2006

## Diels-Alder reaction



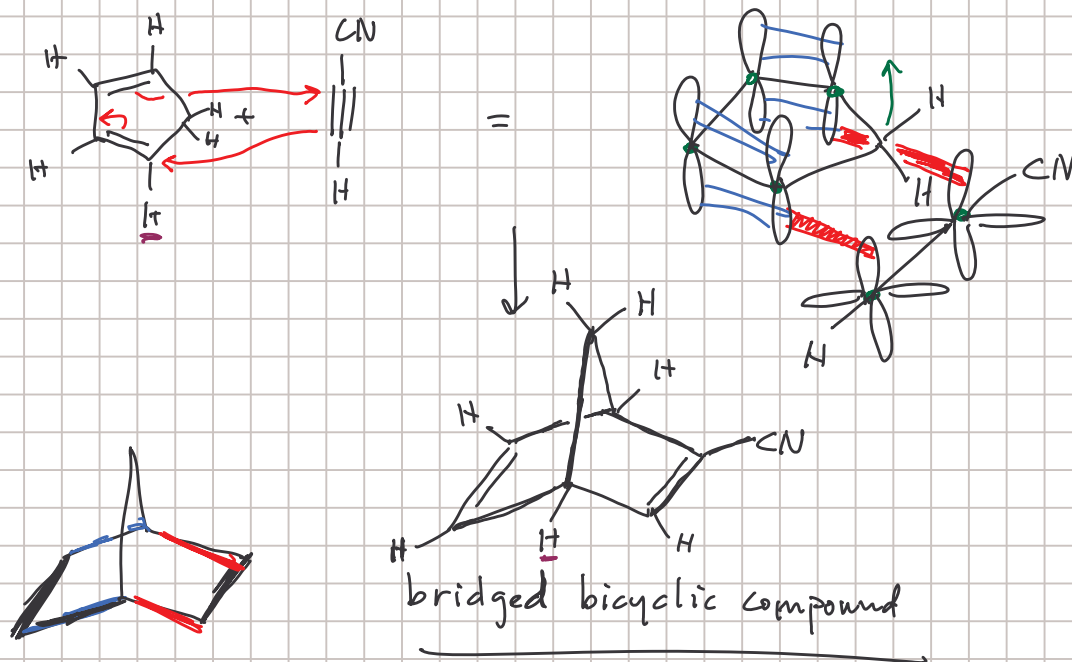
## Constraints

diene must be "s-cis"

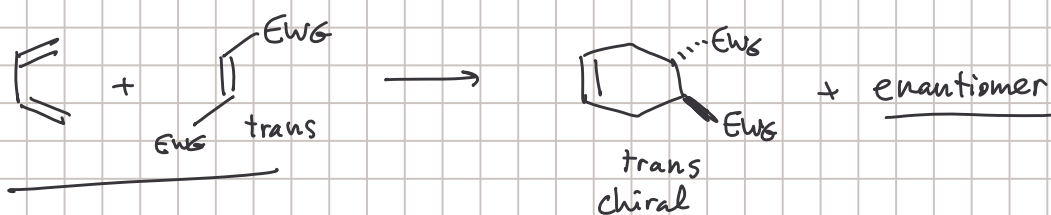
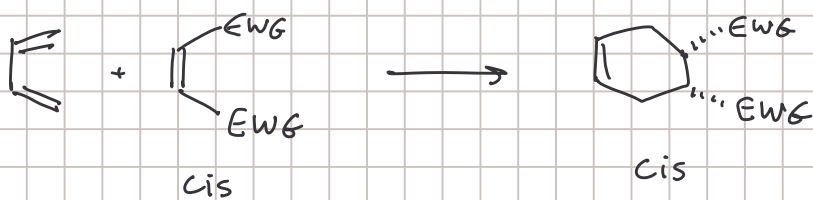




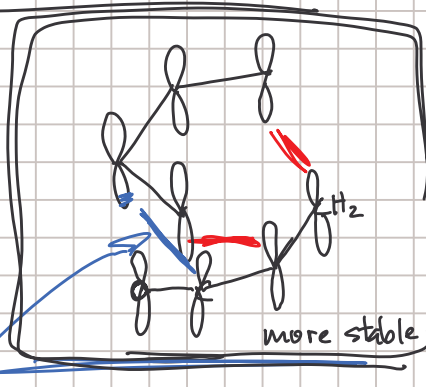
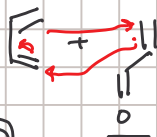
Cyclopentadiene reacts v. quickly in Diels-Alder  
(only s-cis)



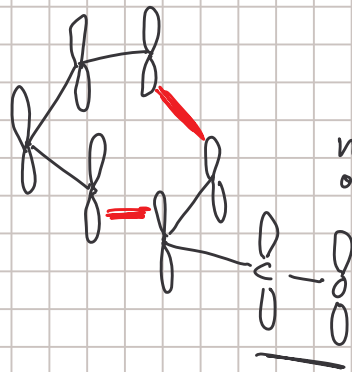
Stereochemistry is conserved



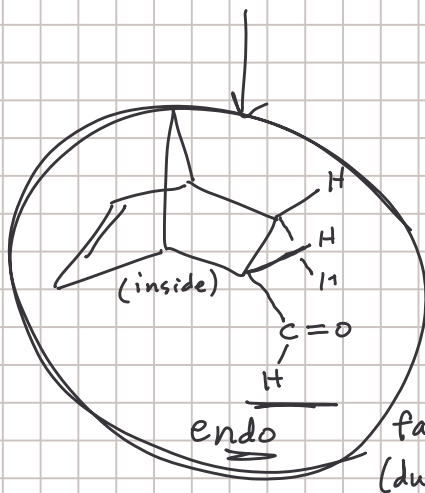
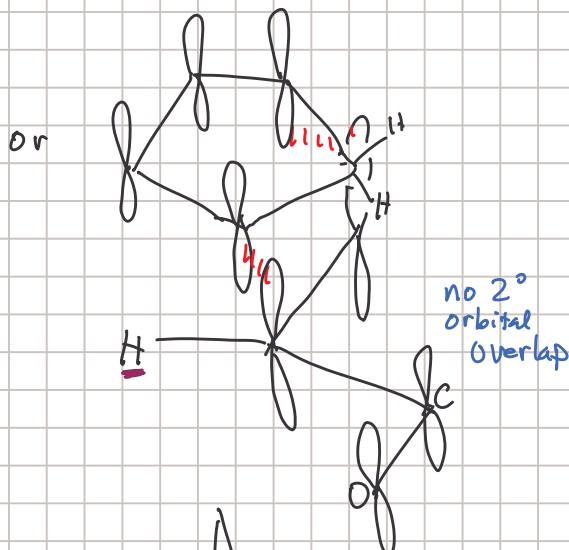
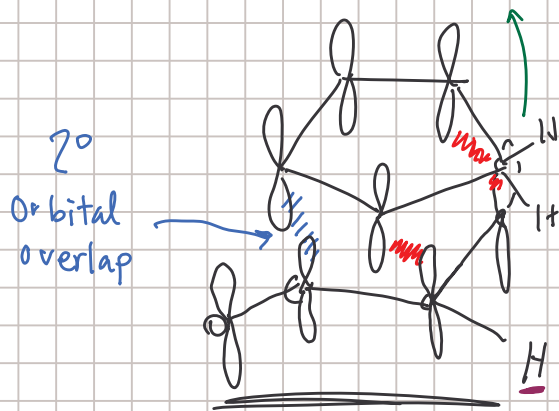
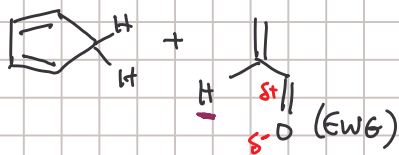
# Endo rule



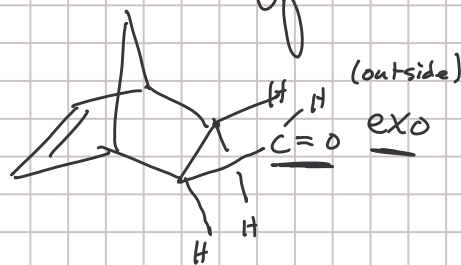
or

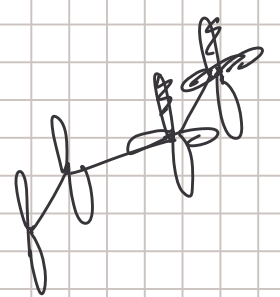
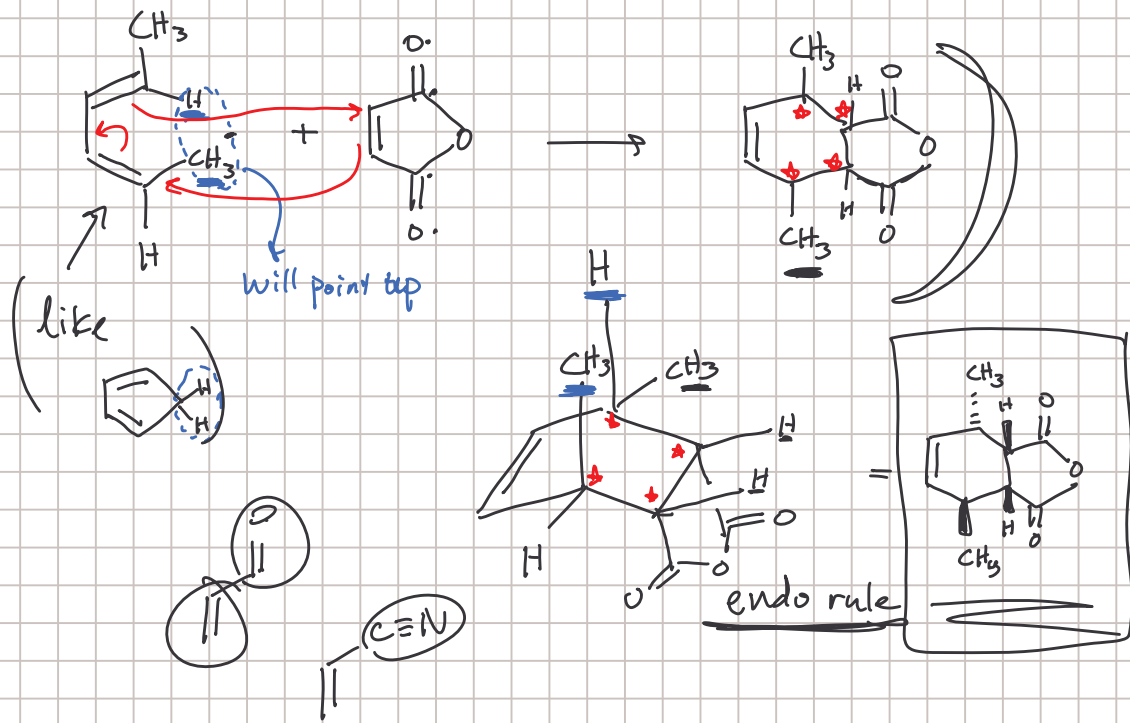


if extra p orbitals in dienophile,  
they will overlap w/ other p orbitals in diene  
→ secondary orbital overlap



favoured  
(due to 2° orbital overlap)





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