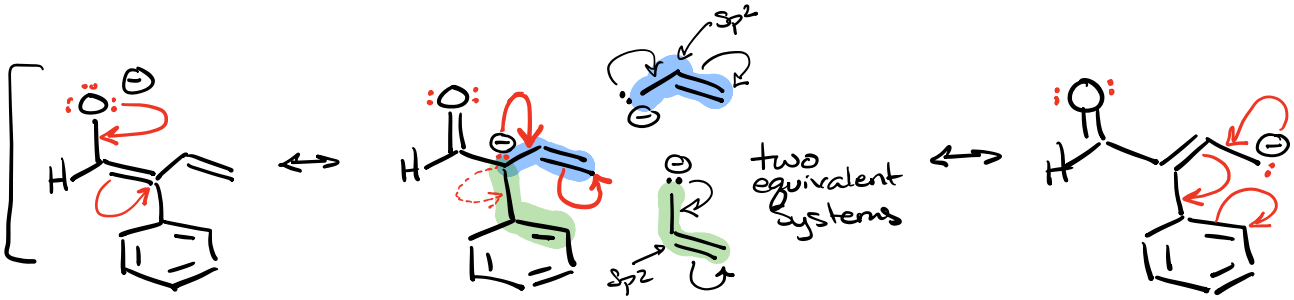
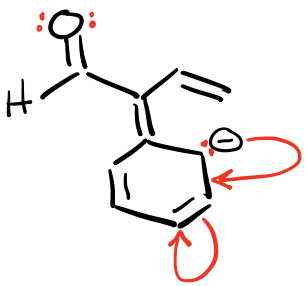
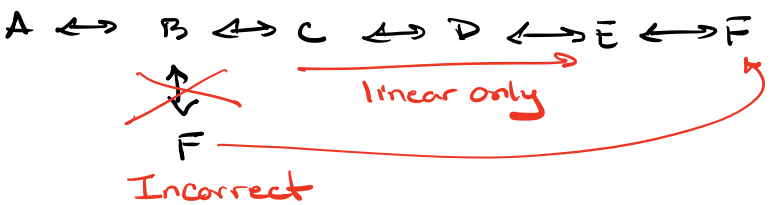
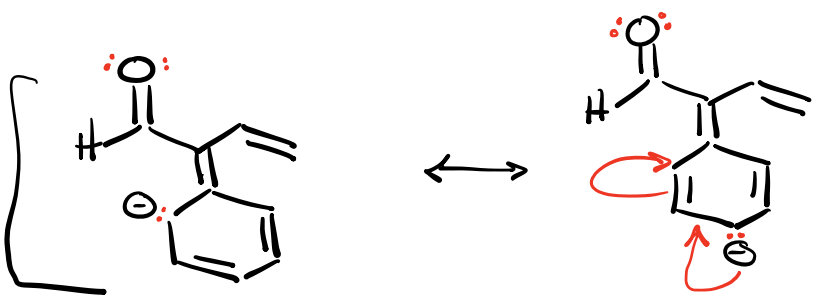


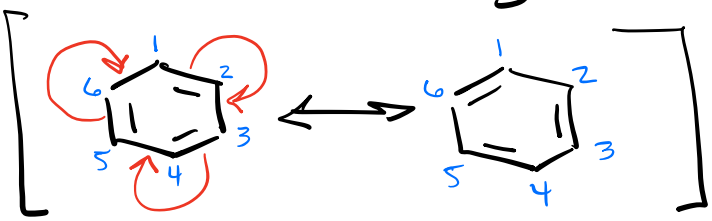
The lone pair is implied by the ⊖. The lone pair is not required but the ⊖ is Required



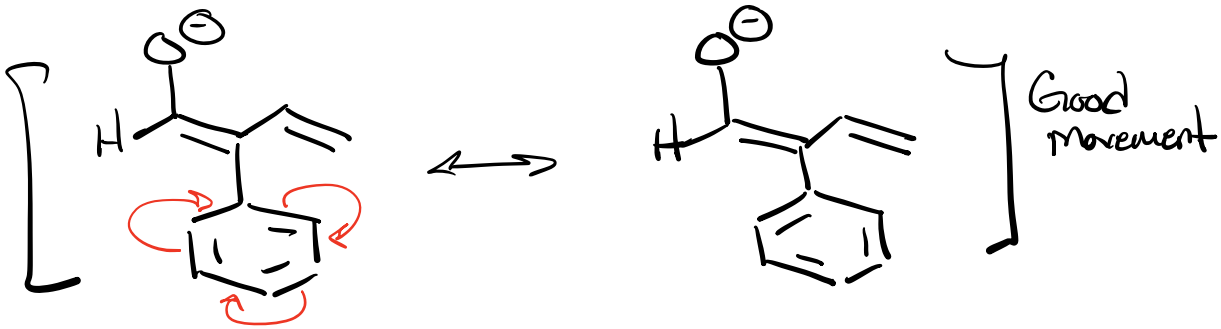




Aromatic Rings



Resonance associated with ring

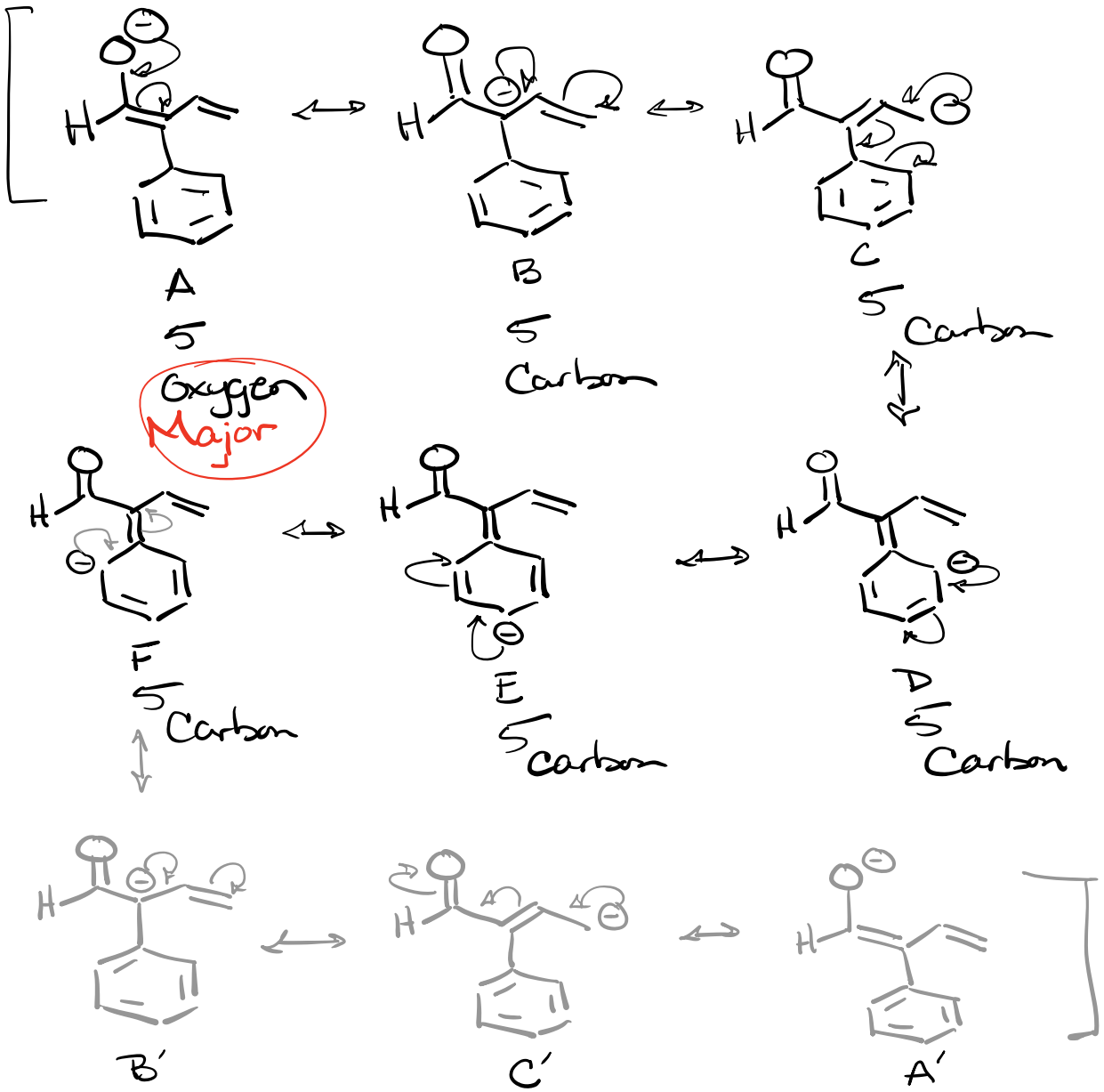


- Shows flow of e^-
- It does not help to move the location of the negative charge.

⇒ Goal w/ Resonance is to assess Relative Stability

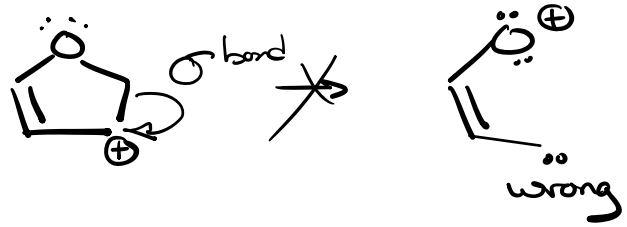
- By look at how charge is delocalized
- delocalized means to spread out & distribute
- The more delocalized a charge is the more stable it is.

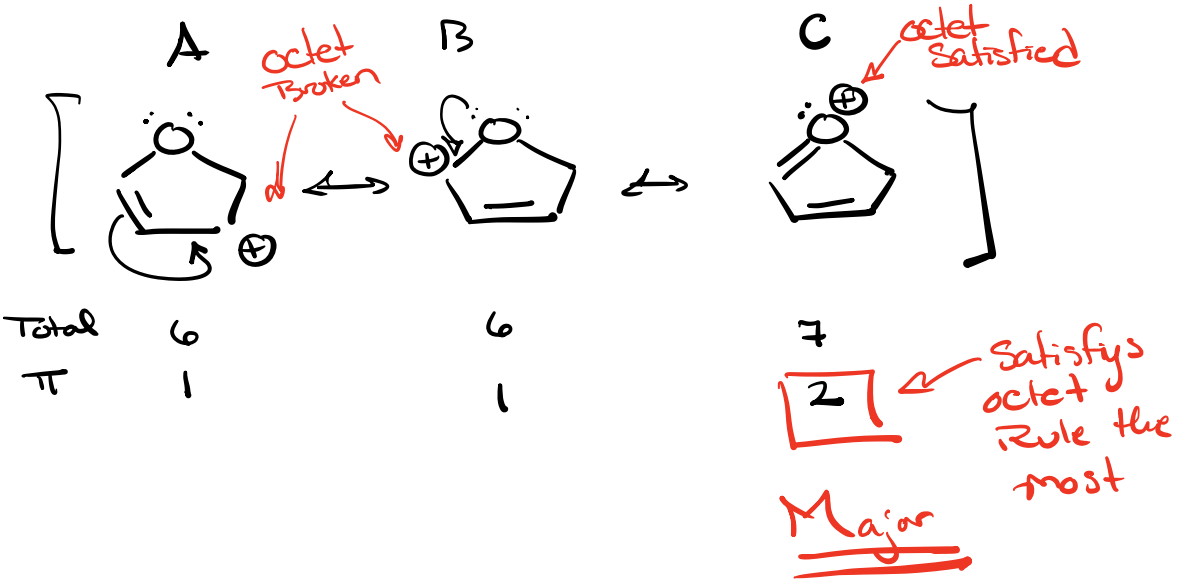
- The # of structures is a measure of delocalization
- We want to count only those structures that move the charge.



Do not move the charge and do not contribute to stability.

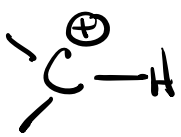
We tend not to draw these three.





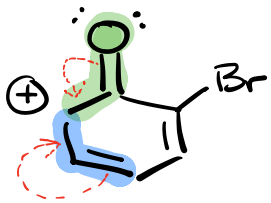
C N O

EN

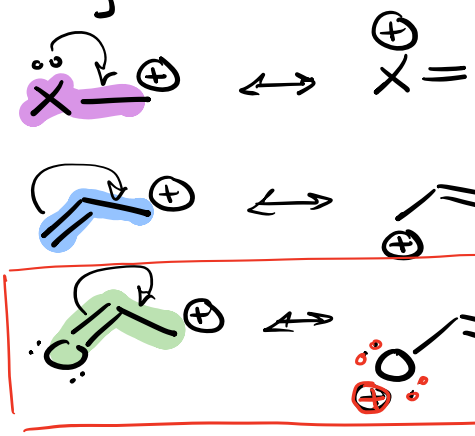


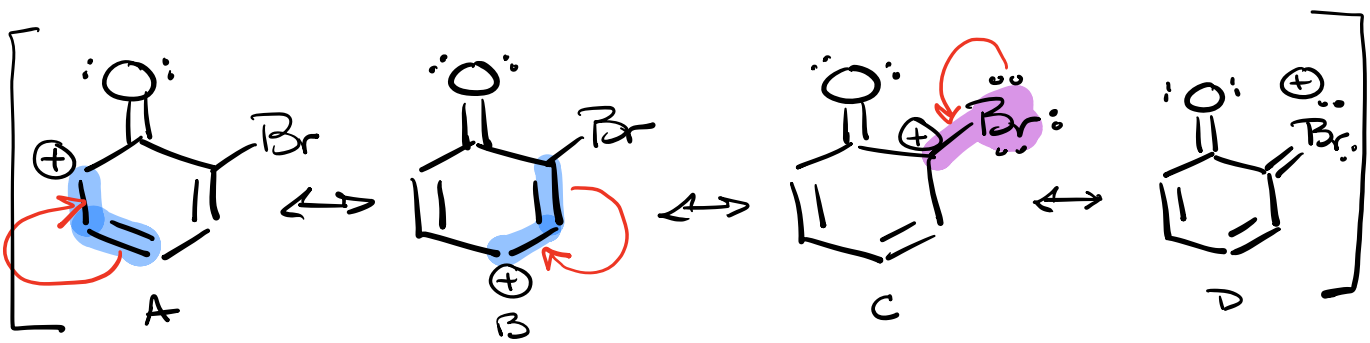
6 e⁻
Broken octet

8e⁻
octet Satisfied ☺



Looking for:





	A	B	C	D
# π	3	3	3	4

+ on C w/ broken octet

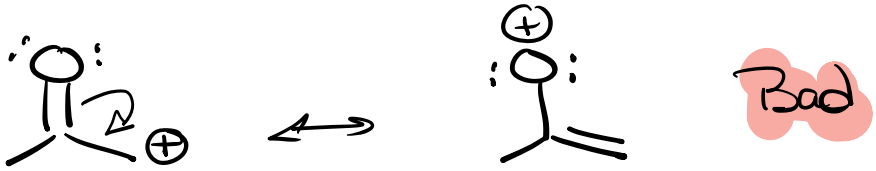
Major

All octets satisfied

Good

octet satisfied

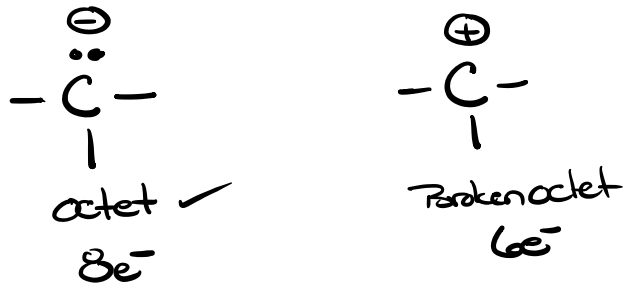
8e⁻



Bad

oxygen octet broken

6e⁻



You need lots of resonance practice

- O'Chem as Second language
- Text book
- Jason's Practice Sheet
  ⇒ Canvas
- SI

Next up Relative Acid & Base

- Chem 1B Skill
  understanding pka
  Not how to calculate
  just the meaning

Ka

$-\log K_a = pK_a$