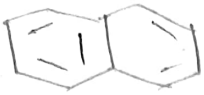
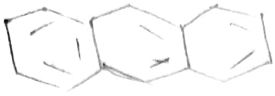
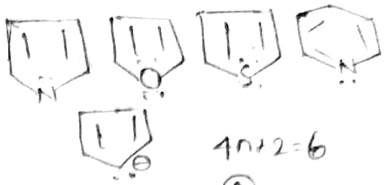
Aromaticity

Stability
Aromaticity > Non-aromatic > anti aromatic

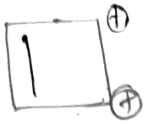

4n+2=6
n=1 (A)

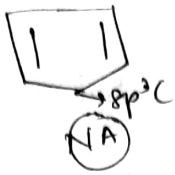

4n+2=10
n=2 (A)


n=3 (A)
14e


4n+2=6
(A)


(AA) 4n=4


n=0
(A) 2e⁻


sp³C
(NA)


(NA)


(AA)


4n+2=2

Aromatic

→ (4n+2)π e⁻s
→ All C's are sp^2
→ conjugation

Anti aromatic

→ 4nπ e⁻s
→ All C's are sp^2
→ conjugation

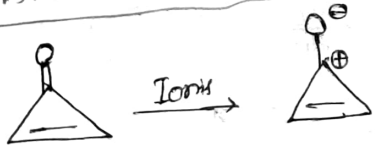
Non-aromatic

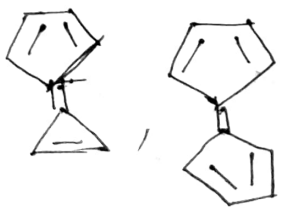
→ at least one sp^3 C.

Fused rings

① Ar + Ar = Ar
② Ar + N.Ar = Ar
③ Ar + Anti Ar = Anti Ar

Quasi Aromatic compounds: Ar compounds which are ionisable





Aromaticity ∝ basicity ∝ equivalent resonance

Ex: