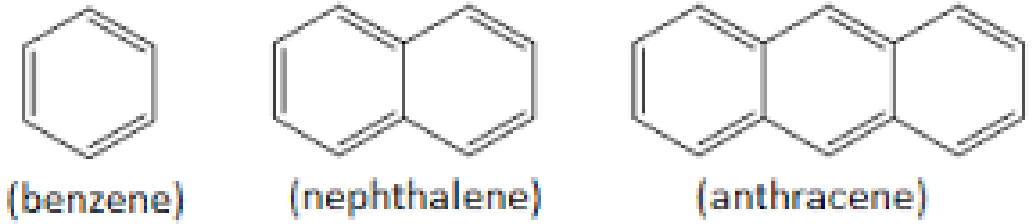
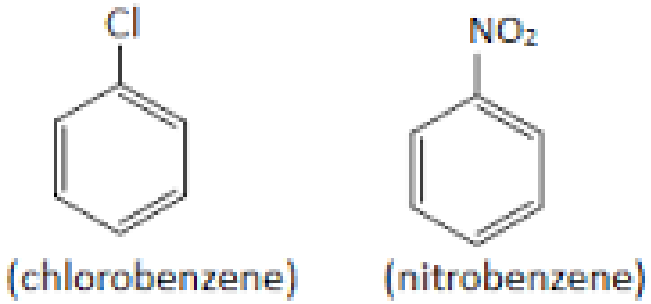
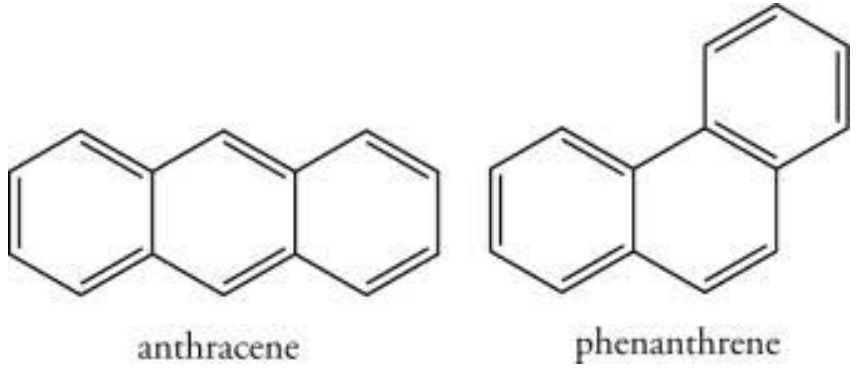
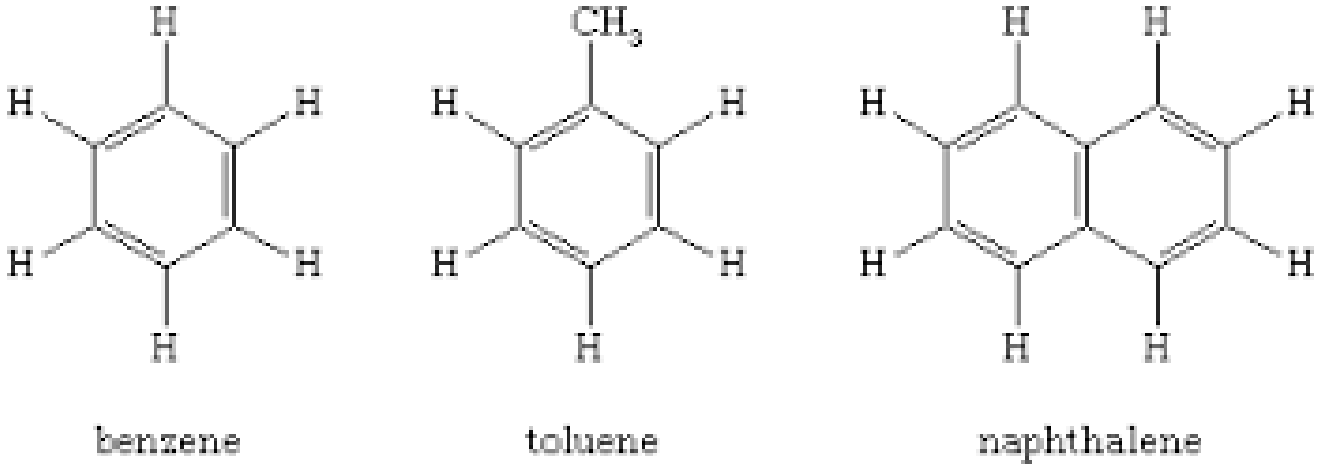






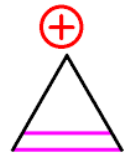
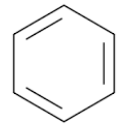
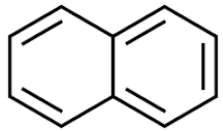
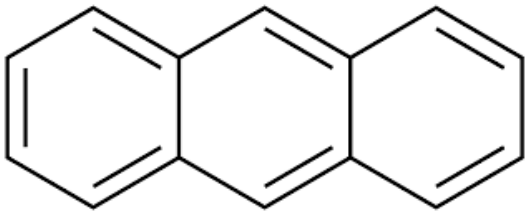
Dr. Sangeeta Kumar, Dept of Chemistry

AROMATICS

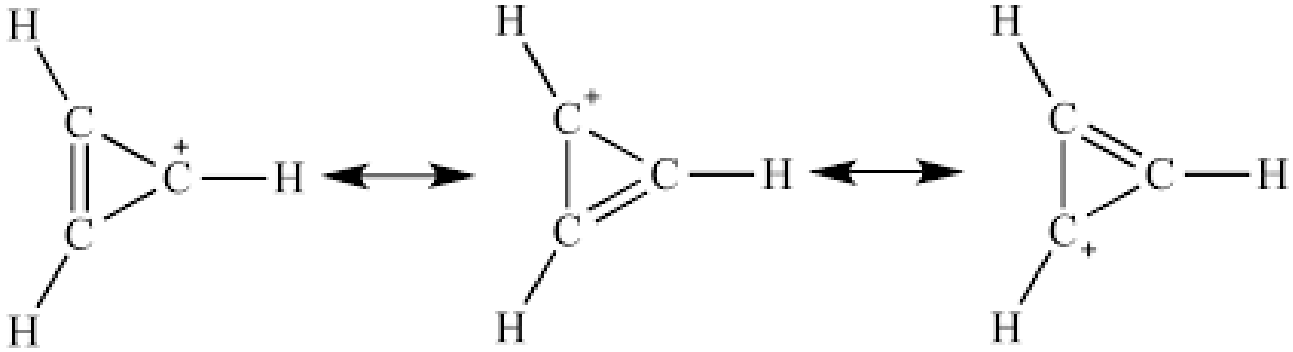


CONDITIONS FOR AROMATICITY

- Compound must be cyclic and planar.
- Each carbon on the ring must be sp^2 hybridized.
- There must be conjugation in the cyclic ring.
- The π electrons are delocalized.
- Each atom in the cyclic system must have a p orbital perpendicular to the ring.
- There should be resonance in the ring.
- Huckel's rule should be followed. That is, there should be 4n+2 π electrons. Here n refers to the number of rings.
- From Huckels rule it follows that there are odd pair of electrons in the aromatic system.

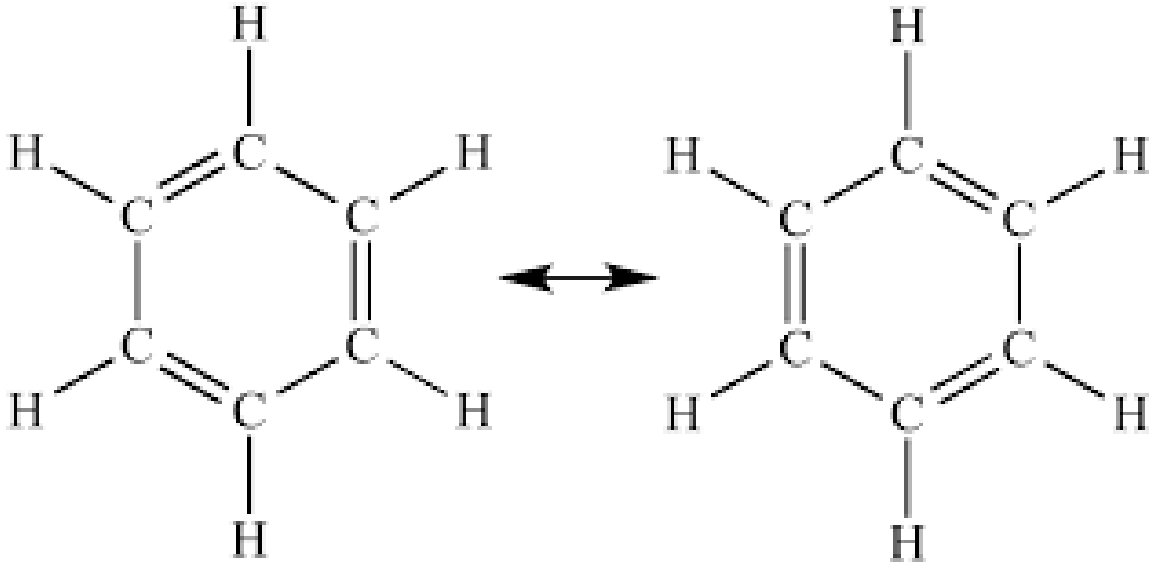
S.No	n	4n+2 Π electrons	No. of double bonds	Example
1	0	2	1	Cyclo propenyl cation 
2	1	6	3	Benzene 
3	2	10	5	Napthalene 
4	3	14	7	Anthracene 

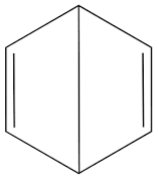
RESONANCE STRUCTURES OF AROMATICS



Cyclopropenyl cation resonance structures

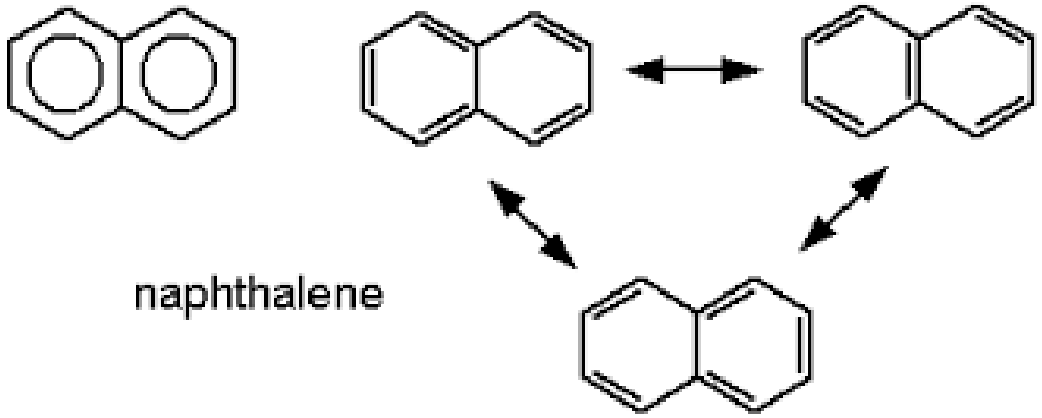
Resonance structures of benzene by Kekule.



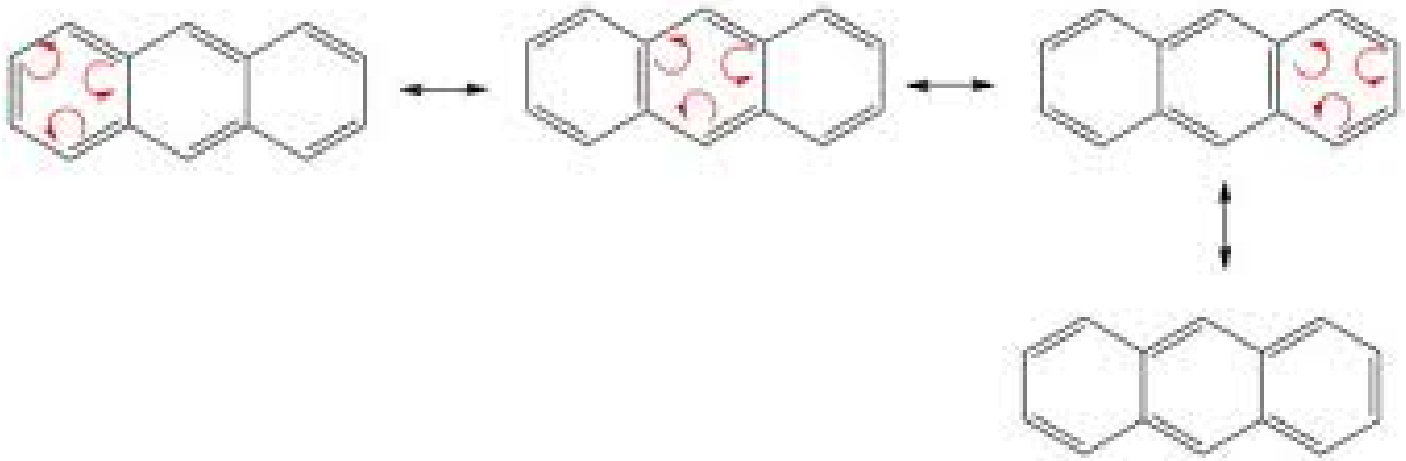


Dewar structure of benzene

Resonance structures of Napthalene



Resonance structures of Anthracene



IDENTIFY THE AROMATICS