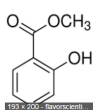


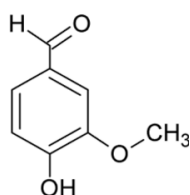
Aromatics:

These compounds usually have a pleasant aroma.

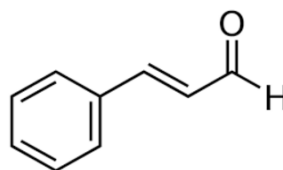
Some examples



wintergreen



vanilla



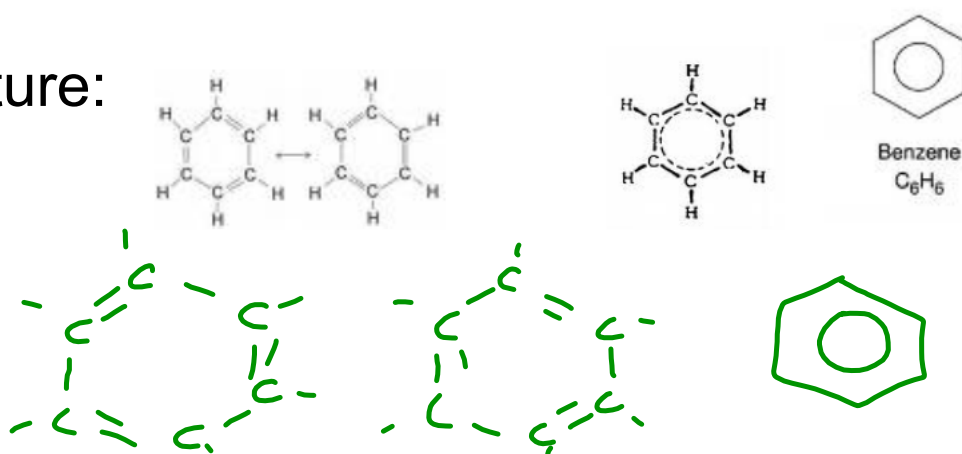
cinnamon

- * This class of aromatic organic compounds share a common structure, the benzene ring, C_6H_6 .

BENZENE:

- colorless, flammable liquid
- carcinogenic
- important non-polar solvent: if it doesn't dissolve in water, it will probably dissolve in benzene.

Structure:



-non-polar

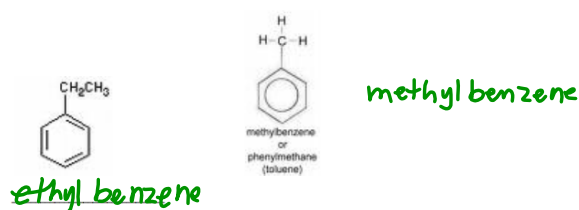
-all C-C bonds the same length (140pm)
between a double (134pm) and single
bond (146pm) bond length

-exhibits resonance

-very unreactive

Naming:

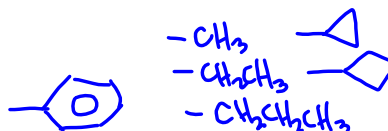
Name the substituent followed by benzene is only one functional group.



For more than one functional group:

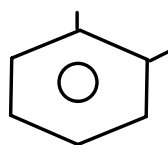
1. Number the carbon atoms to give them the lowest numbers possible
2. Determine the name of the substituents.
3. Put the name together and alphabetize the branch names.
4. When there are two functional groups ...

1,2 - ortho
1,3 - meta
1,4 - para

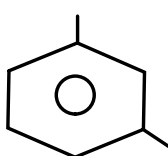


5. If there is a large group attached to the benzene ring, then the benzene becomes the functional group. A benzene group is called "phenyl".

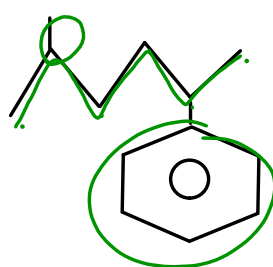
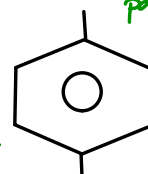
1,2-dimethyl benzene
ortho dimethyl benzene



1,3-dimethyl benzene
metadimethyl benzene



1,4-dimethyl
benzene
paradimethyl
benzene



2-methyl-5-phenyl hexane