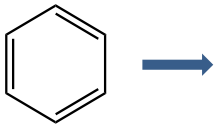
IV.1.4. aromatic hydrocarbons (benzene derivatives):

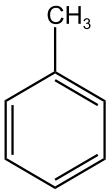
Unlike aliphatic organics, nomenclature of benzene-derived compounds can be confusing because a single aromatic compound can have multiple possible names (such as common and systematic names) be associated with its structure. In these sections, we will analyze some of the ways these compounds can be named.



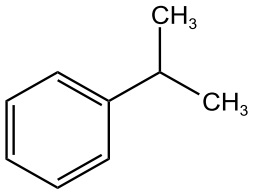
benzène

- Monosubtituted benzene :

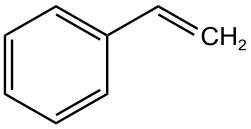
The substituent is named in prefix followed by the name of benzene, nevertheless they have named in priority from the recommended names.



methylbenzène (toluene)



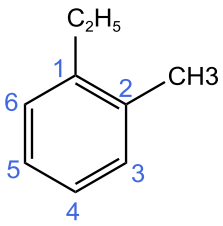
isopropylbenzene (cumene)



ethenylbenzene (styrene)

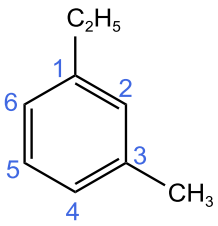
- Bisubstituted benzene :

The cycle is numbered from 1 to 6 in the lowest possible number. The terminology ortho (o), meta (m), para (p) can be used to indicate the positions (1,2), (1,3) and (1,4) respectively.



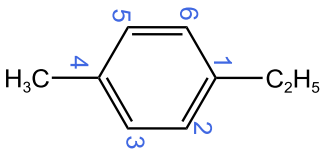
1-ethyl-2-methylbenzene

Or : *o*-ethylmethylbenzene



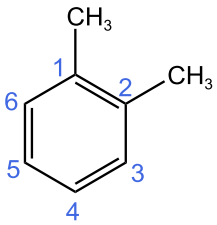
1-ethyl-3-methylbenzene

Or : *m*-ethylmethylbenzene



1-ethyl-4-methylbenzene

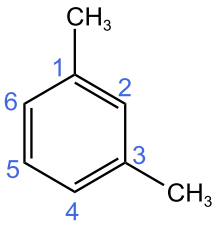
Or : *p*-ethylmethylbenzene



1,2-dimethylbenzene

Ou : *o*-dimethylbenzene

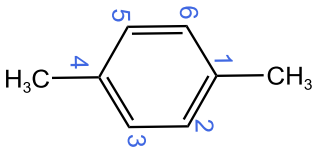
Ou : *o*-xylène



1,3-dimethylbenzene

Ou : *m*-dimethylbenzene

Ou : *m*-xylène

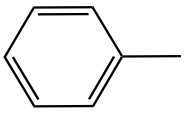


1,4-dimethylbenzene

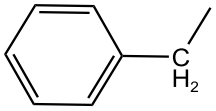
Ou : *p*-dimethylbenzene

Ou : *p*-xylène

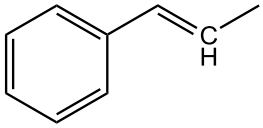
The most widely used benzene-derived radicals are :



Phenyl



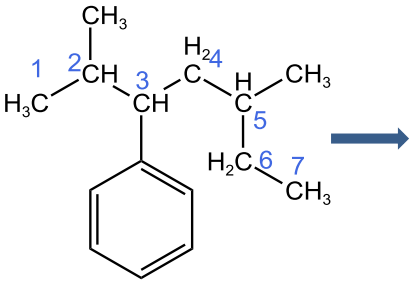
Benzyl



styryl

If attached group on benzene is priciple carbon chain then benzene will be considered as substituent.

Example :



2,5-dimethyl-3-phenylheptane