

# Supplement 6: Organic Chemistry II CHEM 4524 SUNY Alfred State

***The Great Big Summary of Aromatic Compound Names***

**(Notation: Ar=C6H5,4,3** ... **aromatic group if functional φ = `phenyl’ ...if aromatic is a substituent)**

 **IUPAC/Structure Common**

 **(often the preferred name for aromatics) “Psst ! Know \* ones for Doc’s nasty exam, kids!”**



 **Methylbenzene \* toluene=MeAr**

**1,2 dimethylbenzene \*o-xylene**

 **1,3 dimethylbenzene \*m-xylene aliphatic-aromatic**

 **1,4 dimethylbenzene \*p-xylene**

 **1,3,5-trimethyl benzene mesitylene**

 **Ar-NH2 \*aniline anilines and anilides**

 **Ar-NH-C=O \*acetanilide**

 **|**

 **CH3**

 **Benzene carboxylic acid ArCOOH \*benzoic acid acids**

 **HOOC-Ar-COOH \*o,m or p phthalic acid**

 **HO-ArCOOH \*o,m or p salicylic acid**

 **ArOH \*phenol**

 **Ar-CH2 -OH \*benzyl alcohol alcohols**

 **CH3-Ar-OH \*o,m or p cresol**

 **CH3-O-Ar \*anisole ether**

 **phenyl ethene**

 **ArCH=CH2**  \***styrene | alkene**



 **\*napthalene fused rings**



 **\*anthracene**





**phenanthrene pyrene**

 **Complex aliphatic-aromatic naming:**

If aliphatic substituent is complex (e.g not a simple tert, sec, iso-name)...we call the aryl group Ar =C6H5- a `phenyl’ group and treat it as a substituent on the aliphatic chain.

 C Ar

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 Example: C-C-C-C-C-C-C = 3,6-dimethyl-3-phenylheptane

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 C

 Example: Ar-C-C-C-C-C-Ar= 1,5-diphenylpentane