

# 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

| |

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

|

C

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