*CHEM 242 – Lecture 15 12/02/2014*

Overheads: - Outline

Recap Friday:

Aromatic: extremely stable

1. Cyclic, planar, p orbital on each atom
2. odd number of electron pairs in the ring (= 4n+2  e-)

Antiaromatic: fits rule #1, but NOT rule #2 (ie even pairs)

\*\* extremely unstable

\*\* If molecule can do anything (eg bend) to avoid being antiaromatic it will

Examples of Aromatics:

1) Fused rings: count double bonds in all rings (as long as p on each orbital etc)

2) O/N/S in ring: Count lone pairs only if in p orbital



Naming Aromatics

* most named as “substituents”benzene
* order and number as with cyclohexanes







Reactions of Benzene: same as C=C?

Because of stability, less reactive than “normal” C=C

* will not react with HBr, Br2 etc
* need very strong E+

