*CHEM 242 – Lecture 18 26/02/2014*

Overheads: - Outline

Recap Monday: Directing Effects of Substituents

Activating Groups:

* Atoms with lone pairs directly on benzene ring (OH, OR, NR2)
* Alkyl or aryl groups
* All stabilize C+ speed up reaction and direct o/p

Weakly Deactivating Groups:

* Halogens
* Slow down reaction but still direct o/p







Summary:

* All Activating o/p



* Weakly deactivating (halogens)
* Moderately deactivating meta
* Strongly deactivating

⇨ Table 19.1 (16.1 in 6th ed) ⇨ LEARN IT!

Notes on Reactivity







What if there is more than one group on the ring?



Rule: most strongly activating group “wins”

Strategy for Synthesis

⇨ consider directing effects when deciding which to add first



⇨ Good trick! Put in acyl, use as meta-director, THEN reduce to alkyl