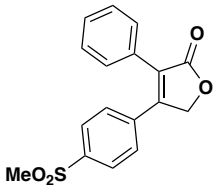
Lecture 1: General Reactivity I

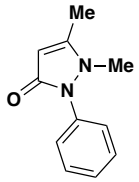
Monday, April 5th, 2021

Study music: Antonín Dvorák, Symphony #9, string serenade in E

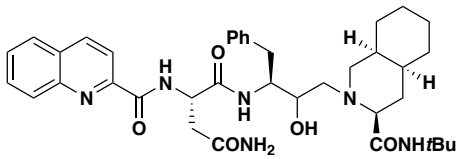
Syntheses discussed:



Vioxx



antipyrine



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Reading assignment: Joule & Mills chapter 1-2, PCC pg 922

SPEED READ: PCC pg 61, 143, 256, 381

Partial list of concepts/transforms discussed:

Four main types of heteroaromatic compounds

Aromaticity as a useful guide to understanding reactivity:

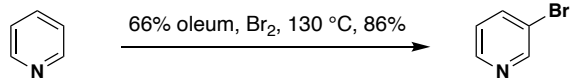
A. Tendency to give addition products rather than substitution products increases as aromaticity decreases
B. Cyclic transition state reactions become far more favored as aromaticity decreases
C. Tautomeric structure is greatly influenced by the degree of aromaticity
D. Facility to undergo unimolecular reactions increases as aromaticity decreases

Electrophilic attack at nitrogen

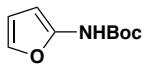
Dondoni aldehyde synthesis

Problems of the day:

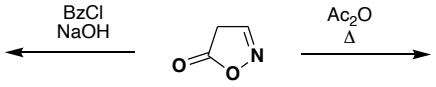
1



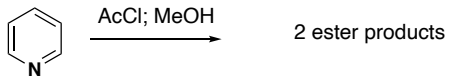
2 How would you synthesize the following furan:



3 Predict the products of the following reactions



4 Predict the 2 major products of the following reaction:



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