

Chemistry 328N Spring 2019

Homework #8

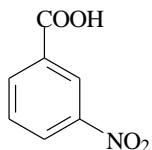
Due: in the box by 5PM on Monday, March 25th

Read: pages 630-639 (Grignard and organolithium reagents), In Chapter 16, pages 653-666 and pages 670-677. "Know" the mechanism on pages 673 and 674.

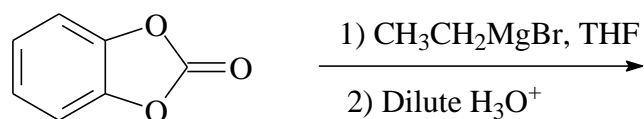
Do: Have a safe Spring Break! and...problems 15.2, 15.3, 15.7a and c, 16.4, 16.19, 16.20, 16.29, 16.30, 16.33 and 16.37.

Supplemental Problems:

1. Starting with benzene, outline a synthesis of m-nitrobenzoic acid



2. We have studied the way in which Grignard reagents react with carbonyl compounds in some detail, but we have not ever discussed the reaction of Grignard reagents with carbonates. Use your knowledge of the basis of the reaction to predict the products of the reaction below. Show the step by step mechanism for the reaction using the curved arrow convention and circle the final products. You are reacting an excess of ethyl Grignard reagent with the carbonate in THF and then working up the reaction with dilute aqueous acid. Show all of the products.



3. Complete the following by supplying missing products.

