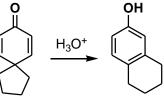
CHEM 8410_6410_4410 – Organic Synthesis



1) In a general reaction known as the cyclohexadienone-phenol rearrangement,

cyclohexadienones are converted to phenols under conditions of acid catalysis. An example is:

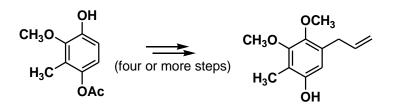


Write a reasonable mechanism for this reaction. 3 PTS

ANSWER:

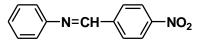


2) Describe a scheme for carrying out the following synthesis. (In the synthesis reported in the literature, four separate operations were required.) **4 PTS**



ANSWER:

3) Outline a synthesis of the following compound from nitrobenzene, *p*-nitrobenzyl alcohol, and any necessary organic or inorganic reagents. **3 PTS**



ANSWER: