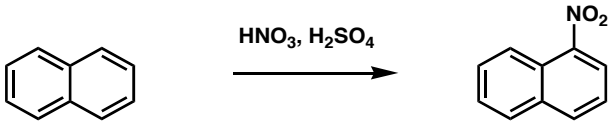
Chem 41c Quiz 6

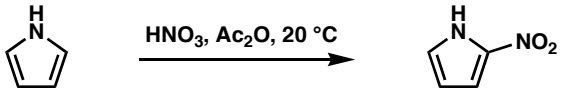
Stoltz, Spring 2005
May 27, 2005

Predict the major products (if any) of the following reactions: (5 points each)

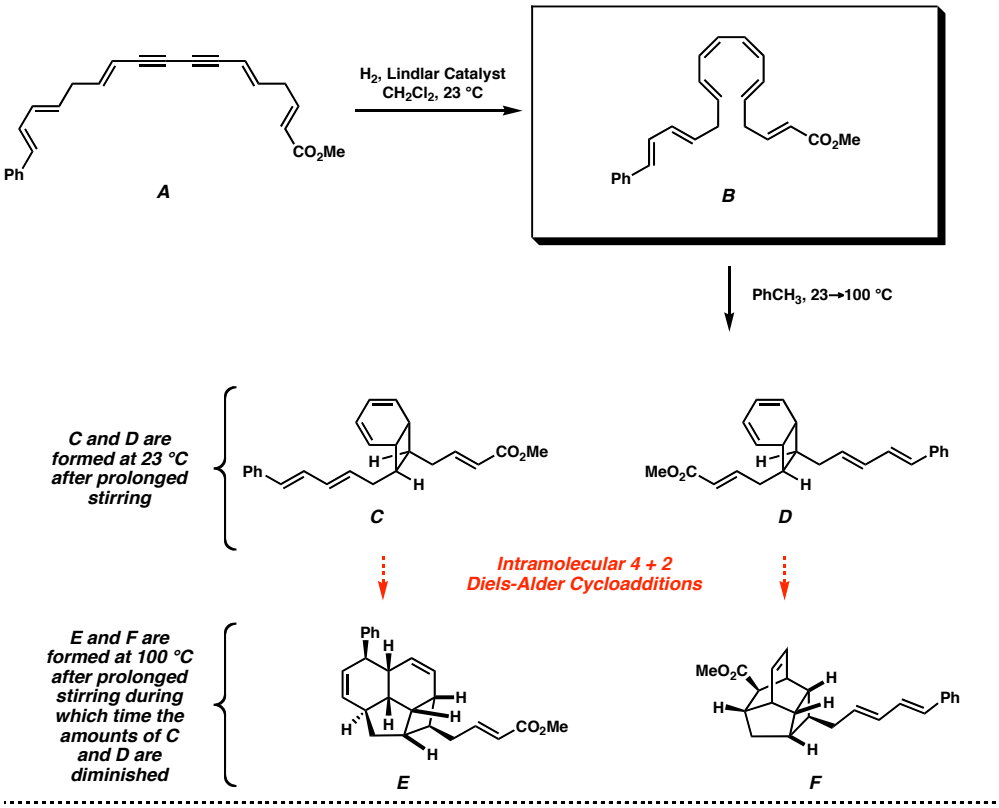
1.

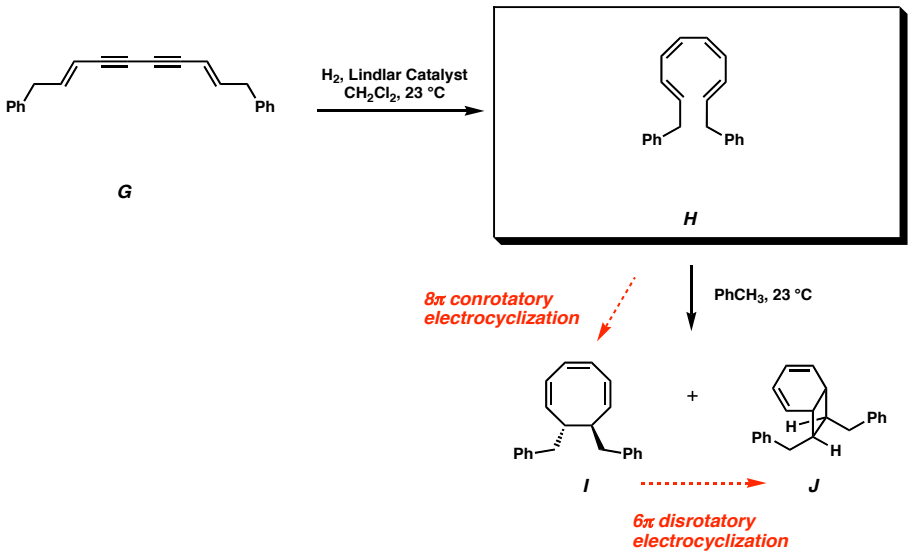


2.



3. A remarkable cascade of pericyclic reactions on compound **B** produces a mixture of racemic compounds **C**-**F** simply upon heating. Compound **B** is prepared by Lindlar reduction of **A**. In a related system compound **G** is reduced to **H** and forms products **I** and **J** after prolonged stirring at 23 °C (eventually only **J** is observed). Your task is the following 1) identify the structures of **B** and **H**, 2) Describe a mechanism for the the conversion of **H** to **I** and **J**, (hint: it may be useful to draw an orbital diagram for **H** although not neccessary) and 3) As a bonus provide the mechanism for the formation of **E** and **F**. (10 points, 10 point bonus)




Ph
Ph
H2, Lindlar Catalyst
CH2Cl2, 23 °C
Ph
Ph
PhCH3, 23 °C
8π conrotatory
electrocyclization
Ph
Ph
+
H
Ph
Ph
H
6π disrotatory
electrocyclization

G *H* *I* *J*