Cal Poly Pomona, Organic Synthesis CHM 4220

Dr. Laurie S. Starkey, Diels-Alder Homework

Name:

A)
$$+$$
 $0 \longrightarrow 0$ Δ

$$\rightarrow$$
 + \rightarrow \rightarrow \rightarrow

C)
$$OCH_3$$
 $+$ Δ $H_3O^+\Delta$

D)
$$\rightarrow$$
 \rightarrow \rightarrow

G)
$$+$$
 CH_3O_2C \longrightarrow No Reaction (explain)

H) Synthesize the given TM from starting materials containing carbon chains no more than six carbons:

I) Provide the reagents necessary to transform the given starting material into the desired TM. Draw at least a few of the structures formed along the synthetic route (e.g., show your work). It may help to first consider the retrosynthesis of the TM.

J) Provide the missing reagents.

$$CO_2Et$$
 B
 CO_2Et
 CO_2Et
 CO_2Et
 CO_2Et
 CO_2Et