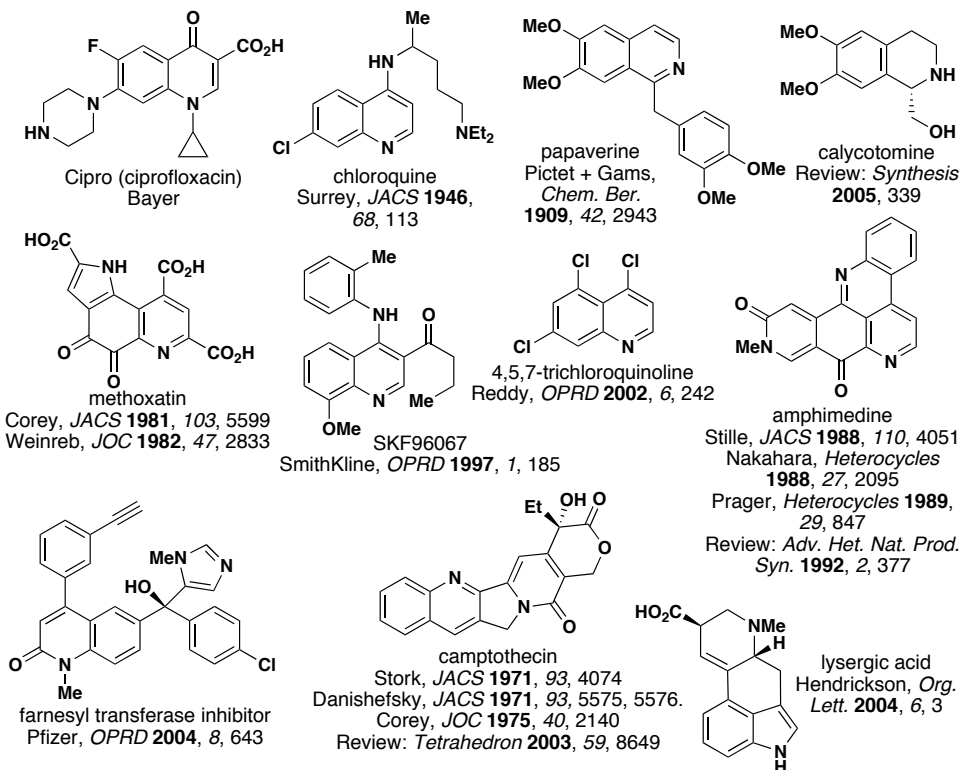


Tuesday, April 19th and Thursday, April 21st, 2011

Background music: Copeland and Haydn

Syntheses discussed:



Reading assignment: Li chapter 9; HC chapter 6

Partial list of concepts/transforms discussed:

Quinoline ring forming reactions:

Combes
Conrad-Limpach
Knorr
Gould-Jacobs
Skraup
Friedlander
Pfitzinger
Doebner
Meth-Cohn (Vilsmeier approach)
Camps

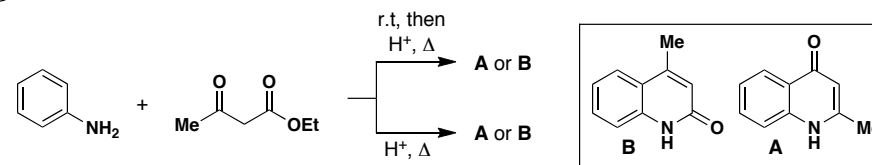
Isoquinoline ring forming reactions:

Bischler-Napieralski
Pictet-Gams
Pictet-Hubert
Pictet-Spengler
Gabriel-Colman
Pomeranz-Fritsch

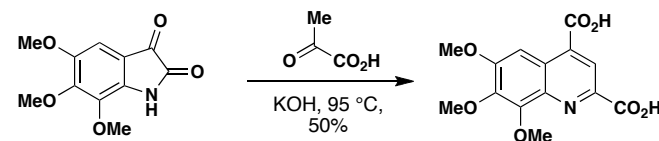
Danishefsky pyridone synthesis

Problems of the day:

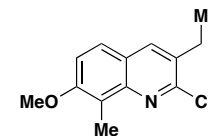
① Which conditions provide A and B?



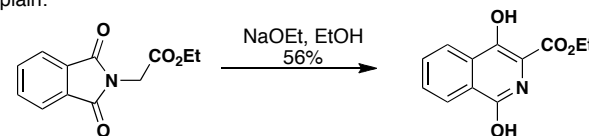
② Explain:



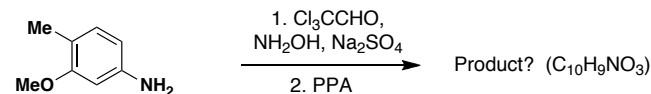
③ Using disconnections B+C, propose a synthesis of the following chloroquinoline:



④ Explain:

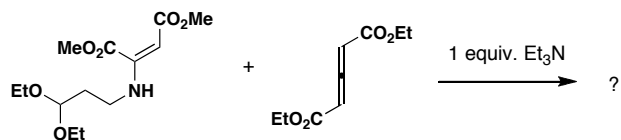


⑤

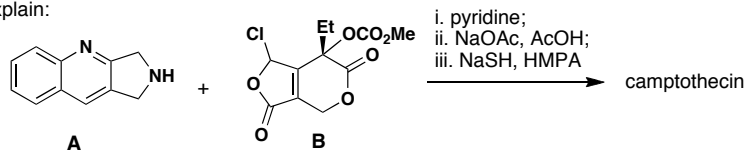


⑥ Propose syntheses of calycotomine by ring synthesis and ring substitution

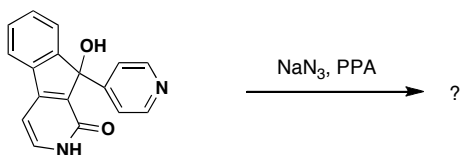
7



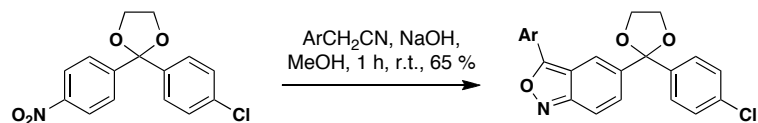
8 Explain:



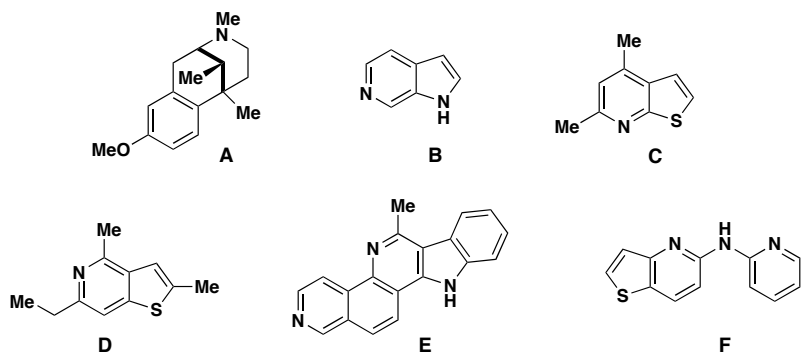
9



10



11 Provide routes to the following heterocycles:

Summary of recent camptothecin syntheses (from *Tetrahedron* **2003**, *59*, 8649-8687).