

Exercises KJ 5220

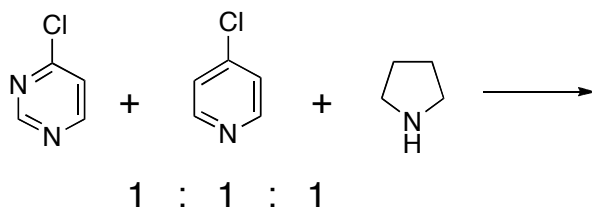
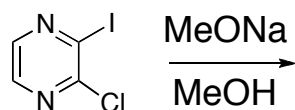
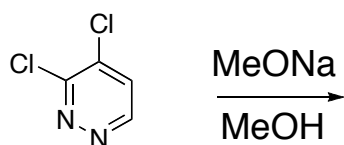
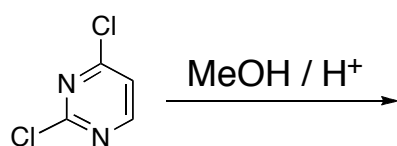
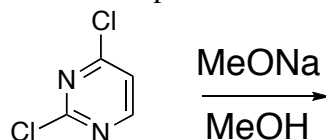
November 11 – 2007

“Left-overs” from last week?

New exercises:

1.

Which compounds are formed (as the major product) in the reactions below?

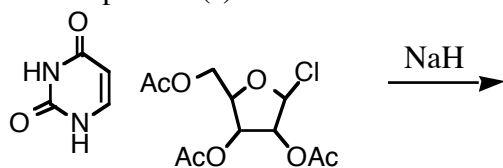


2.

Show the mechanism for the Chichibabin reaction on pyridine. Why is KMnO_4 added in Chichibabin reaction on pyrimidine but not on pyridine?

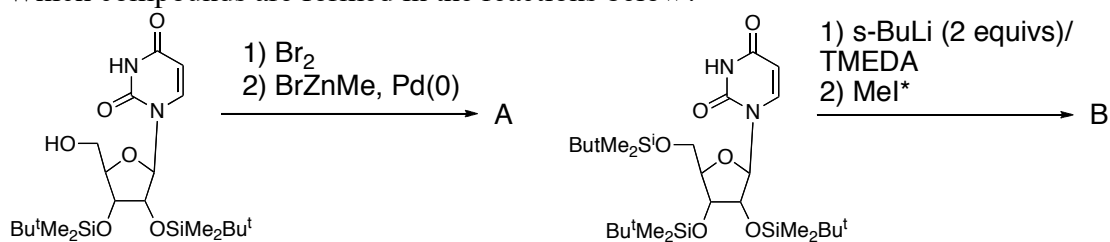
3.

Which product(s) can be formed?

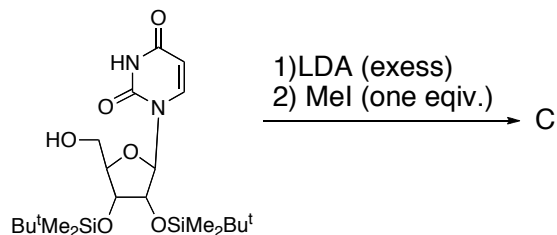


4.

Which compounds are formed in the reactions below?

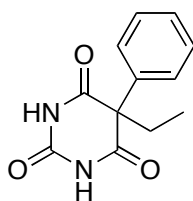


* alternative a: 1 equiv. MeI
 alternative b: ≥ 2 equivs MeI

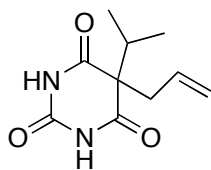


5.

The structures of the drugs aprobarbital and phenobarbital are shown below. Design a synthesis of aprobarbital (7) from diethylmalonate, and explain why the same route cannot be used for the synthesis of phenobarbital



Phenobarbital



Aprobarbital

6.

Explain the reactions below

