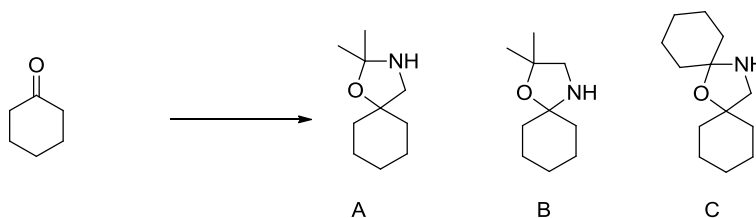


Problems - Set 4: Carbonyl compounds (part 2)

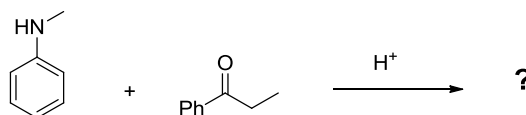
Problem 1

Give possible synthetic pathway for compounds **A**, **B** and **C** from cyclohexanone:



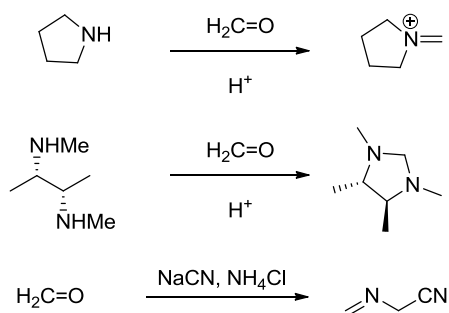
Problem 2

For the following condensation provide a mechanism leading to all the possible products.



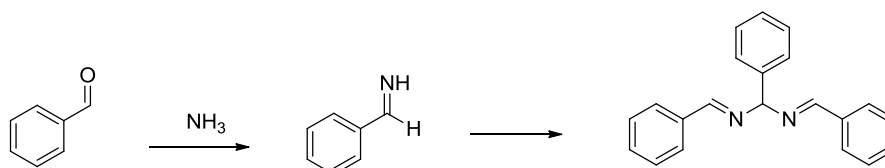
Problem 3

Suggest mechanism for the following two reactions with the smallest aldehyde, formaldehyde.



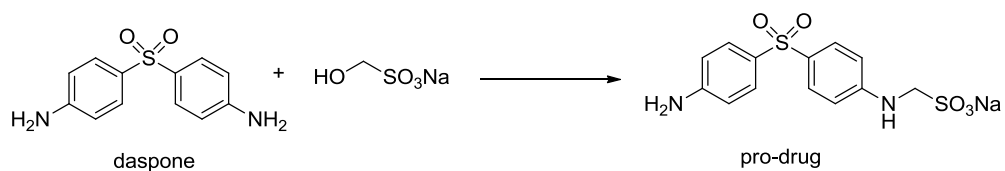
Problem 4

A stable product can be isolated from the reaction between ammonia with benzaldehyde. Propose the mechanism.



Problem 5

The drug daspone is insoluble in water, but its administered pro-drug is a water soluble (pro-drug means that in the human body the drug is released in its active form). Suggest a mechanism leading to the pro-drug.



Problem 6

Suggest mechanism for the following reactions

