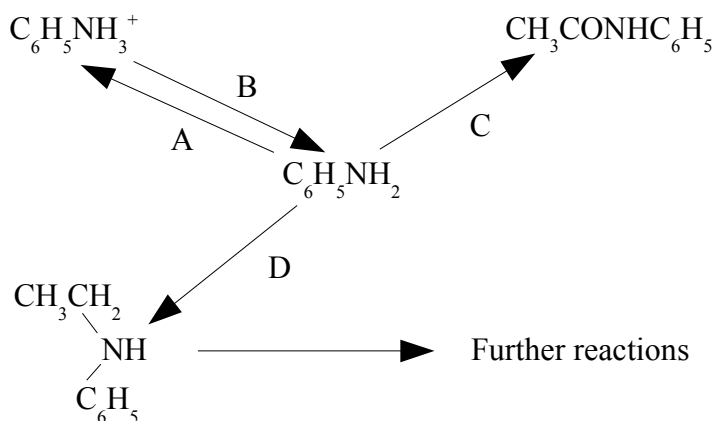


Chemguide – questions

PHENYLAMINE: AS A PRIMARY AMINE

1. Phenylamine is a much weaker base than a primary amine like ethylamine or than ammonia. Explain why.
2. The flow diagram below shows some reactions of phenylamine:



- a) What would you add to get reaction A?
- b) What would you add to get reaction B?
- c) There are two ways to achieve reaction C. In each case, give the necessary reagent, and any important conditions.
- d) What would you react it with to get reaction D? Give any necessary conditions for the reaction.
- e) Reaction D wouldn't just give the product shown, because several further reactions are possible. Briefly and without detail, explain why further reactions are possible.