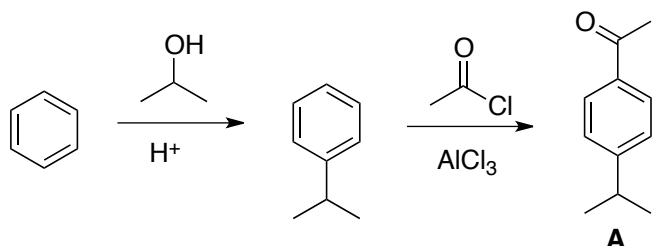
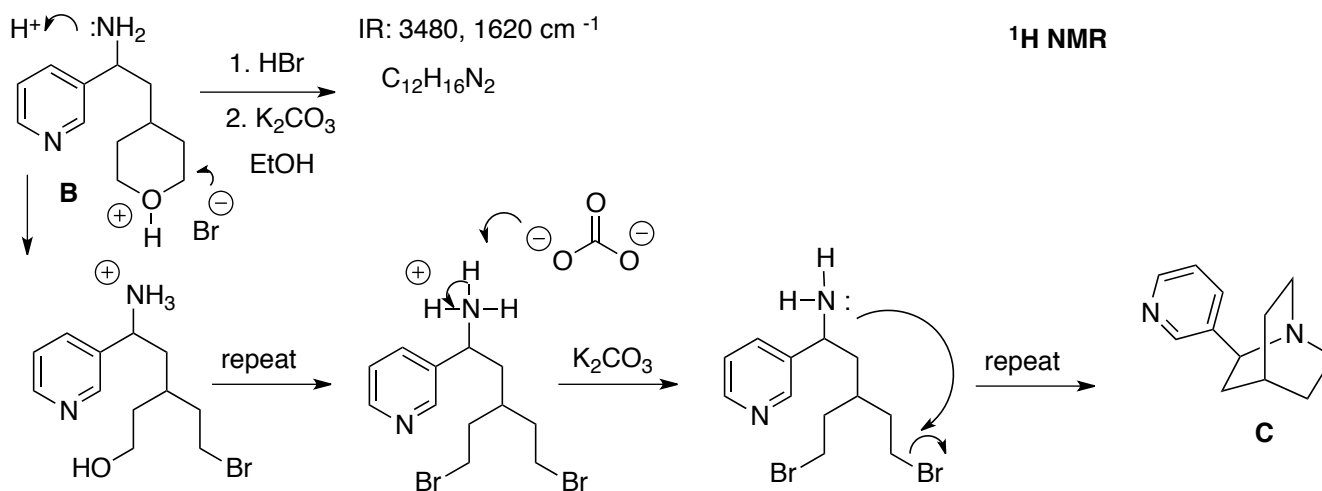


1. (10 points) Using any piece that contributes three or fewer carbons to the final product, and any monosubstituted benzene derivative that contributes at most seven carbons to the final product, outline a synthesis of **A**.



2. (10 points) Deduce the structure of **C**, and draw an arrow-pushing mechanism for its formation.



3. (10 points) Draw an arrow-pushing mechanism for the conversion of **D** to **E**.

