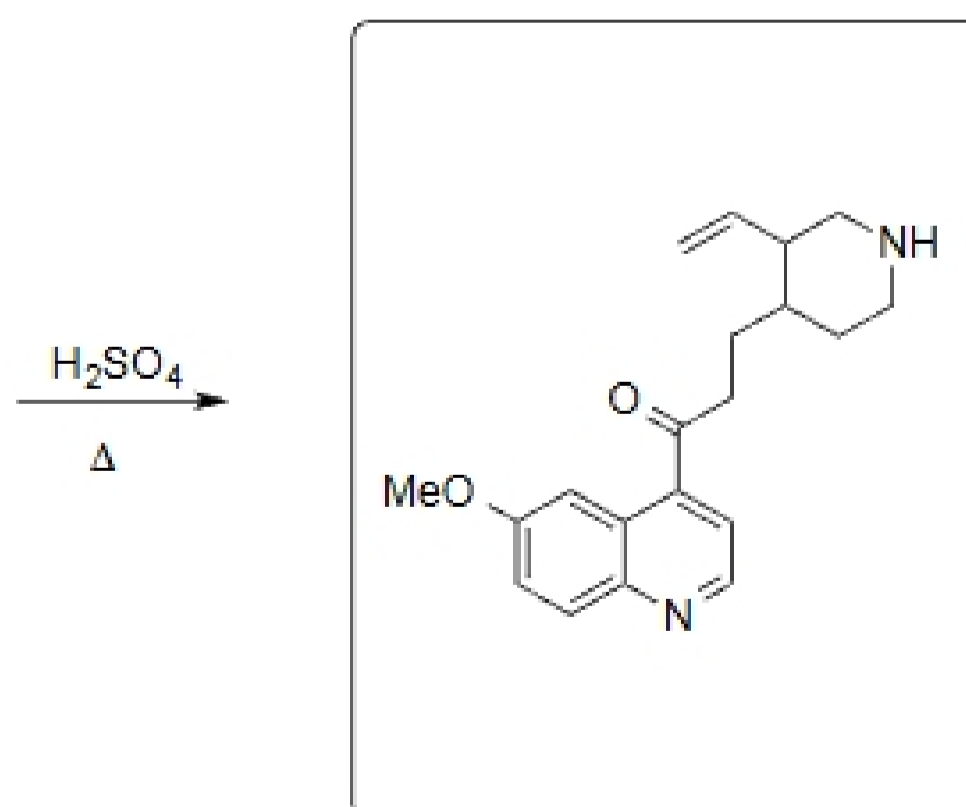
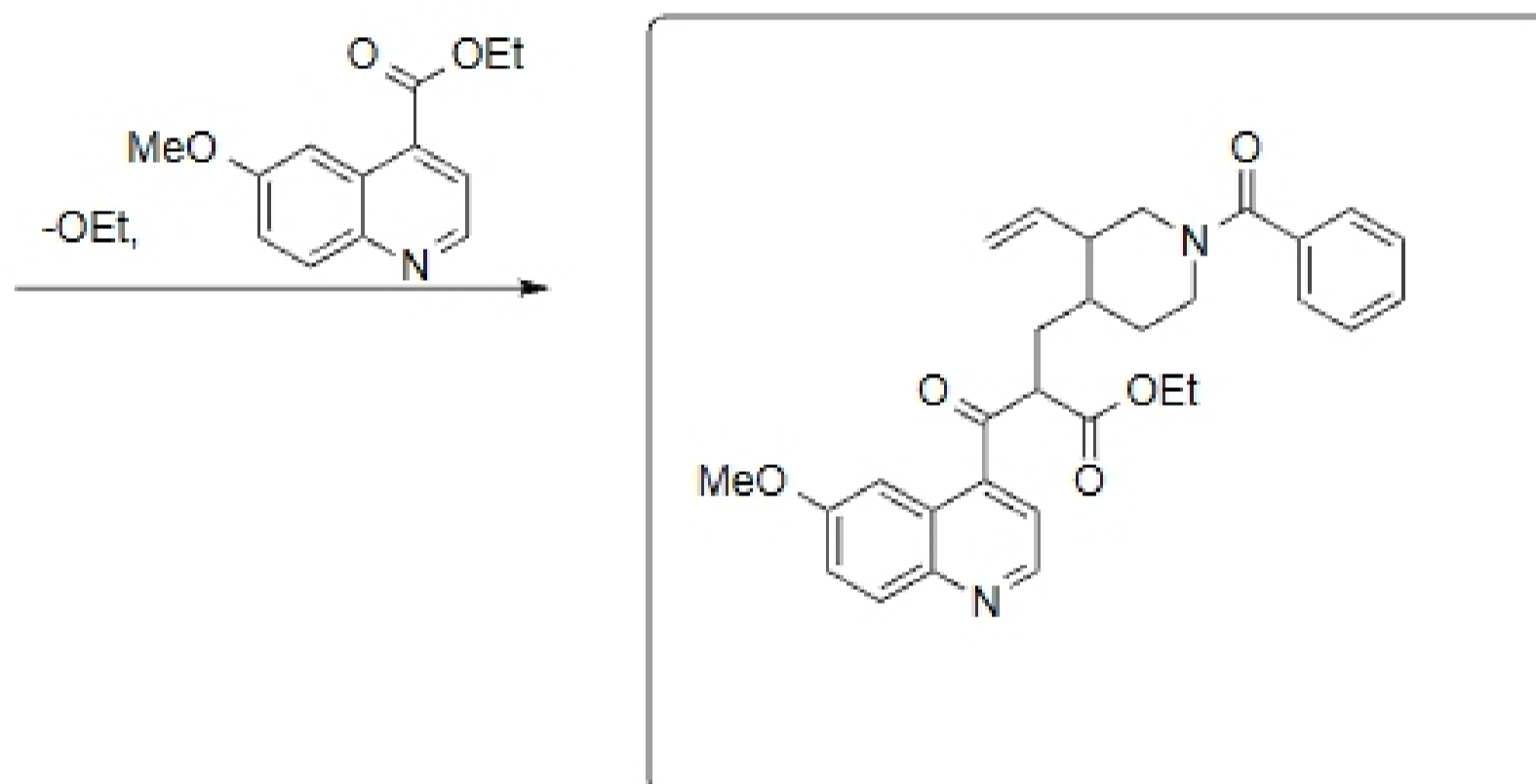
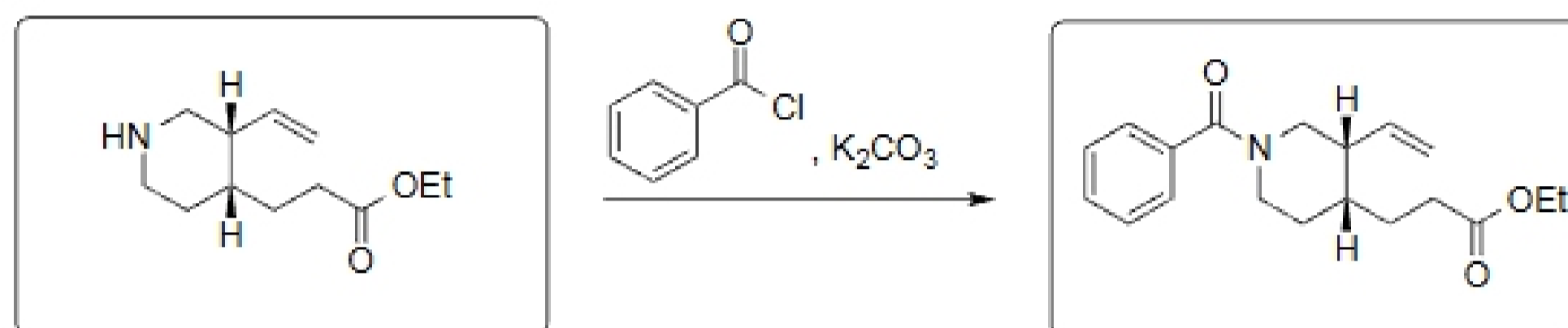
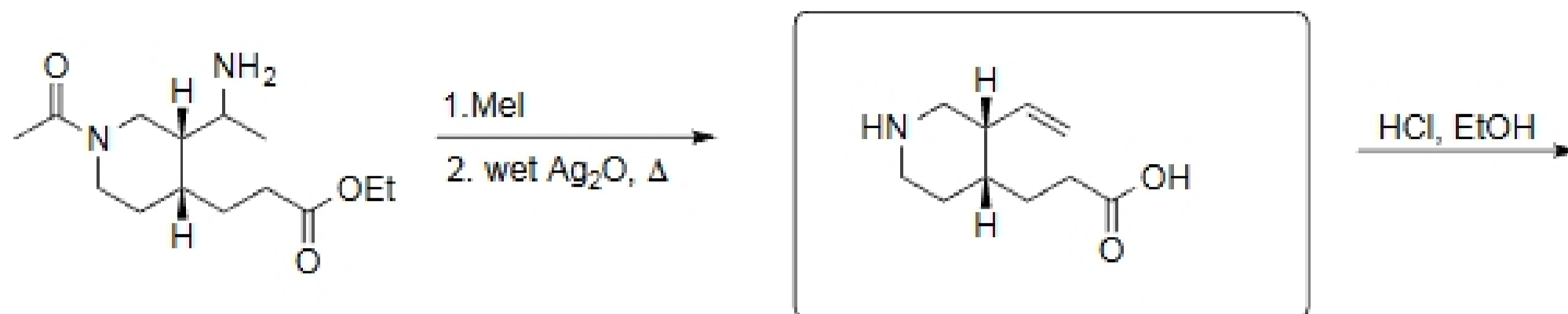
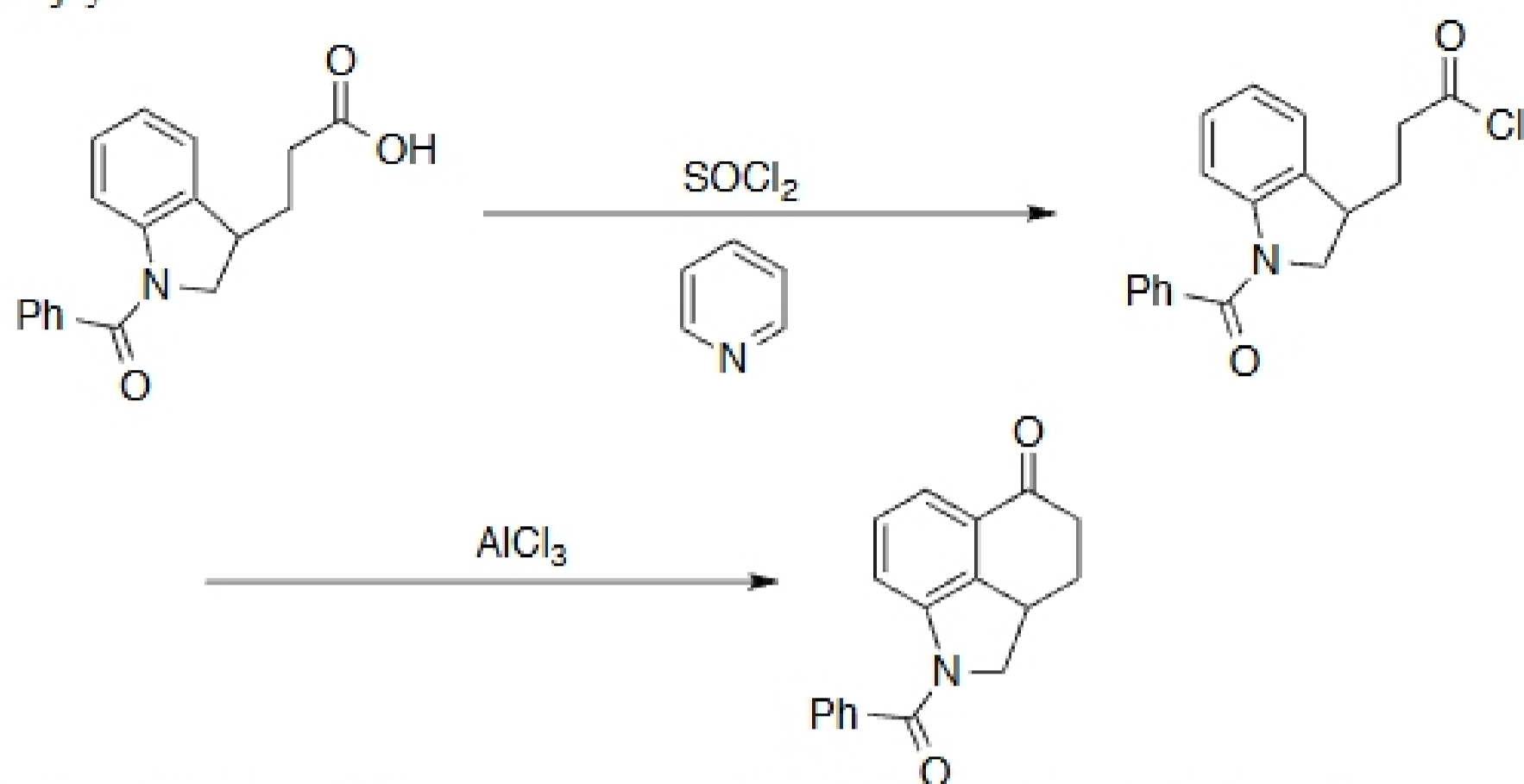


CHEM 343, Final Problem Set Key

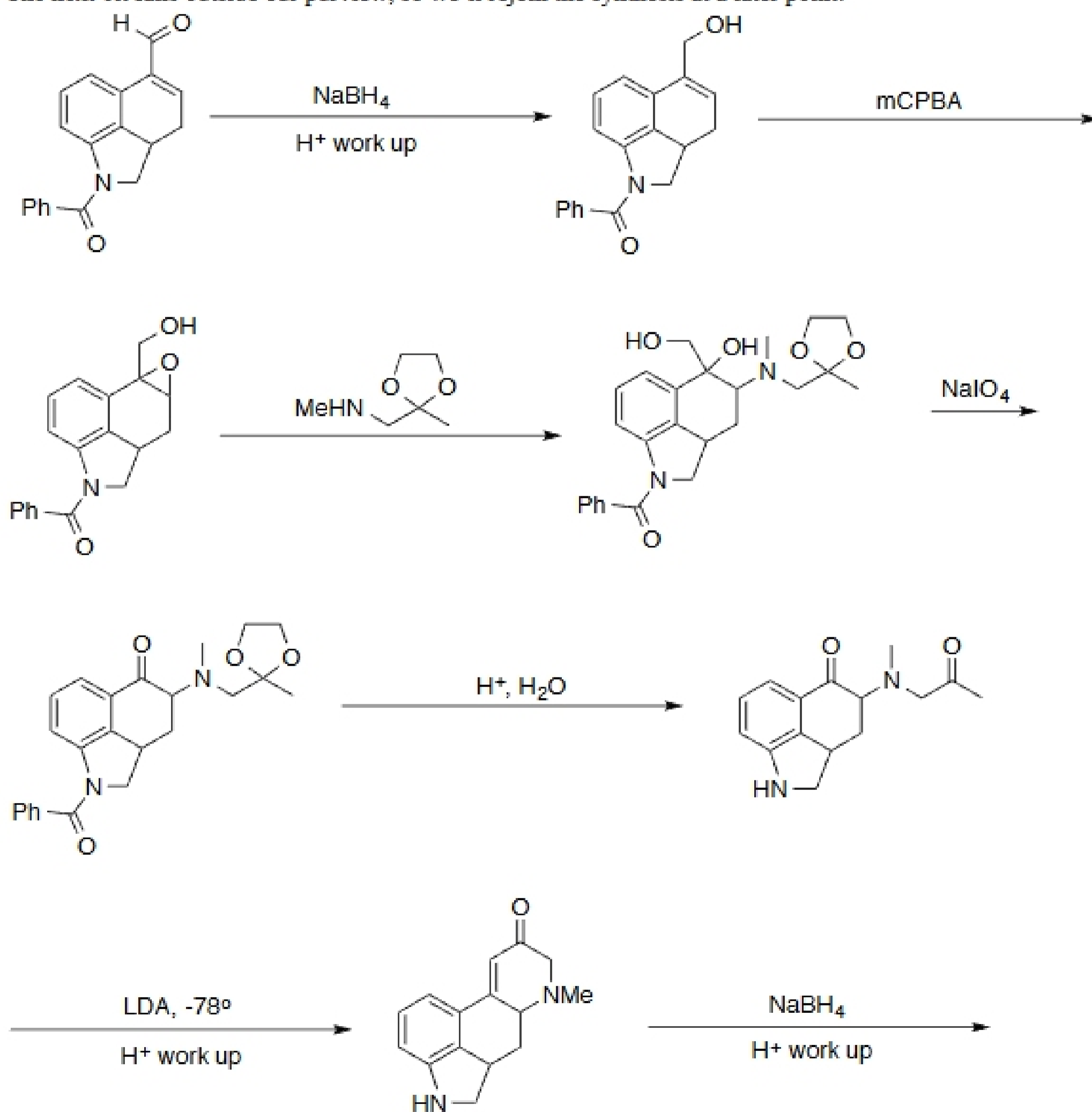
The first part of the problem set is brought to you by R.B. Woodward and William Döring's 1944 synthesis of quinine. You'll feel your malaria symptoms lessening just by looking at it.

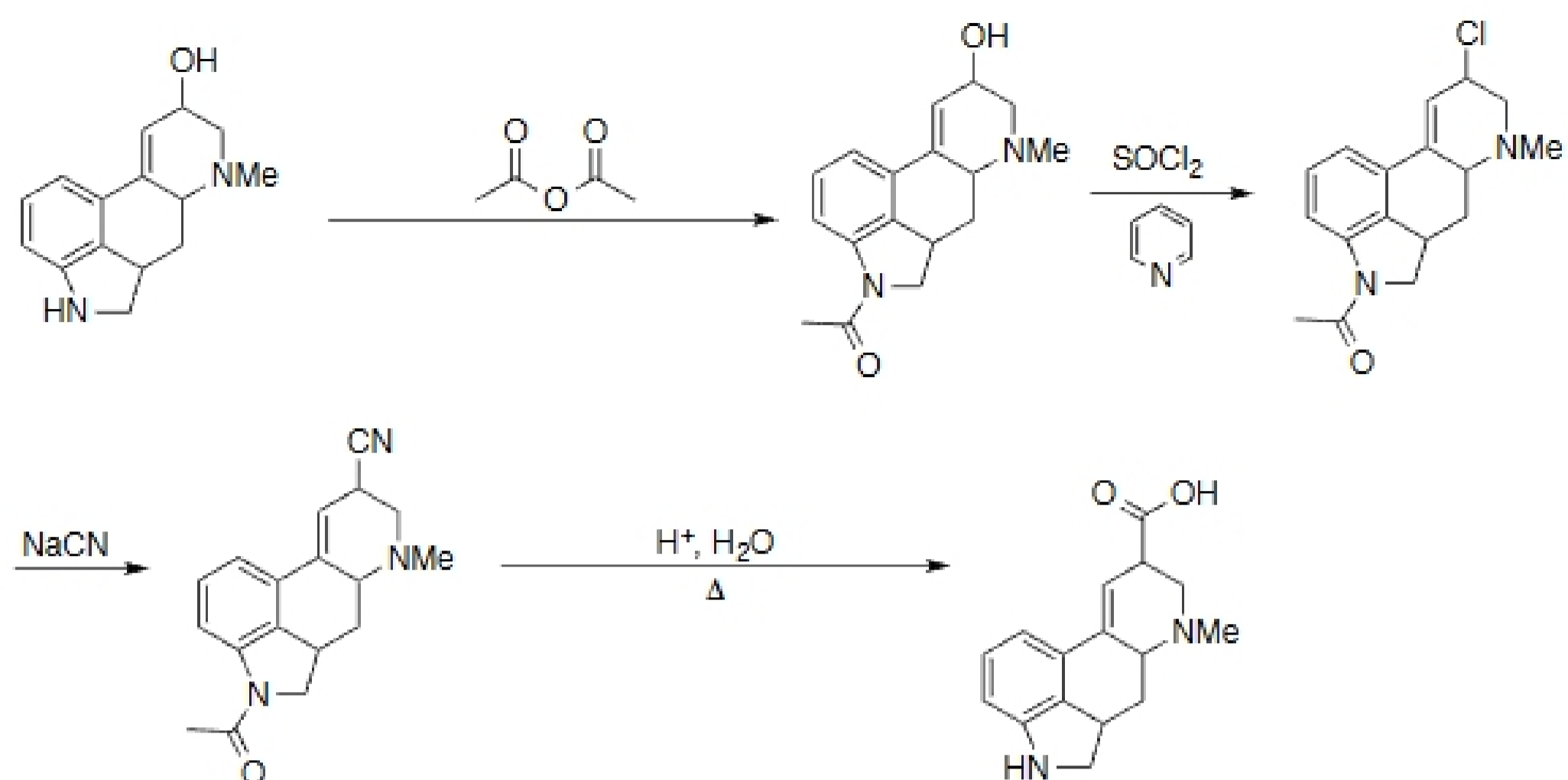


The remainder of the problem set is comprised of R.B. Woodward's 1956 synthesis of lysergic acid. The final steps are not included in his synthesis, but are there to complete corresponding dimethyl amide. Enjoy!

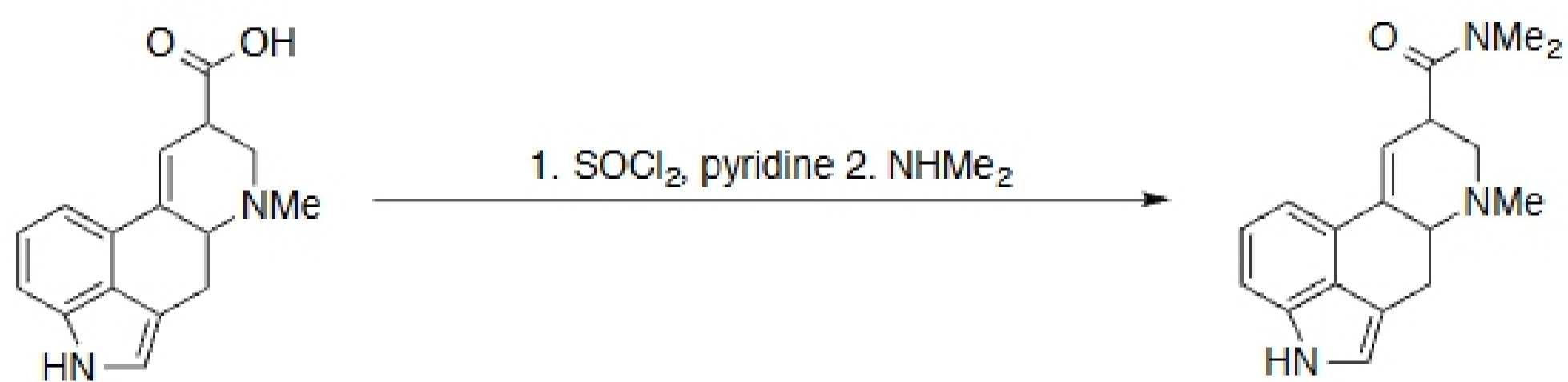


The next bit falls outside our purview, so we'll rejoin the synthesis at a later point:





The final oxidation to lysergic acid is again further afield than where we need to travel, so we will skip ahead to finishing the synthesis:



lysergic acid