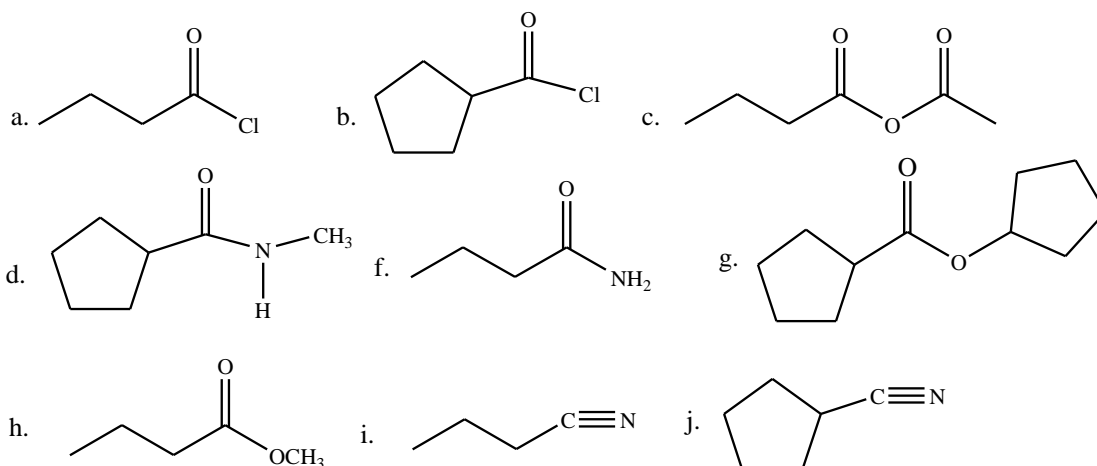


Carboxylic Acid Derivatives (21)

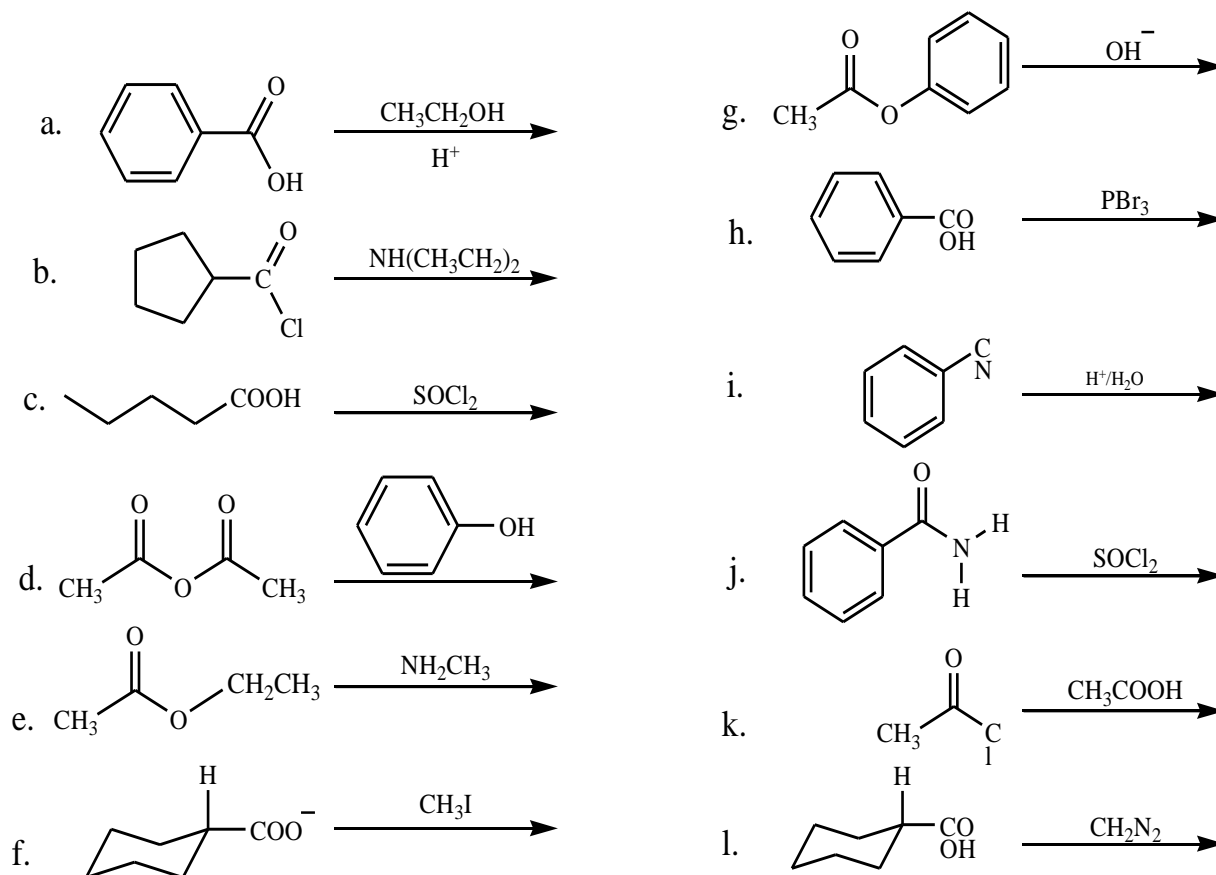
1. Nomenclatures

For each of the compounds shown below, provide an acceptable IUPAC name.

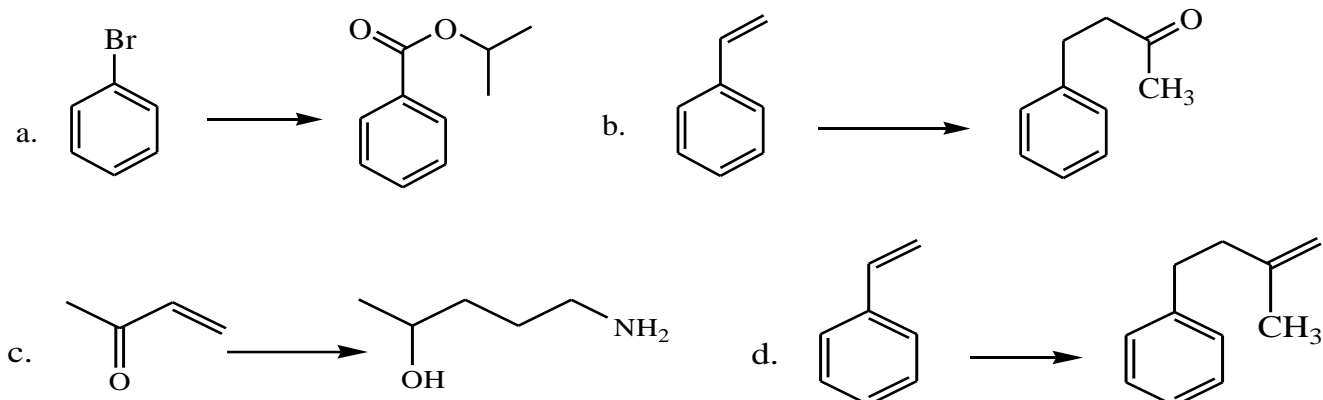


2. Carboxylic Acid Derivatives—Synthesis

a. For each of the reactions below, predict the major organic product.



b. suggest a synthesis for each of the compounds shown below, beginning with the starting material shown on the left. Clearly show all intermediates and reaction conditions.



3. Carboxylic Acids Derivatives—Reactions

