

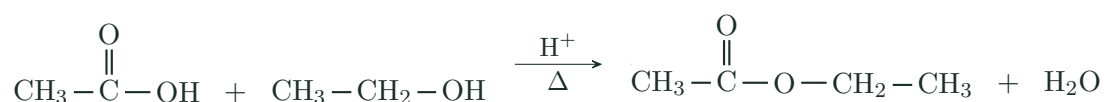
Reaction Schemes

Drawing organic structures, syntheses & mechanisms with chemfig

This template shows three common patterns: a single-step reaction with a reagent arrow, a multi-step synthesis, and a reaction mechanism with curved electron-pushing arrows. Replace the molecules and labels with your own.

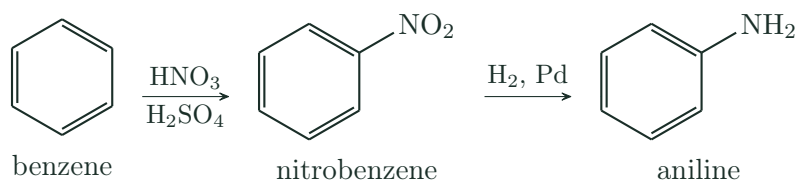
1. Single-step reaction

Scheme 1. Fischer esterification of acetic acid with ethanol to give ethyl acetate.



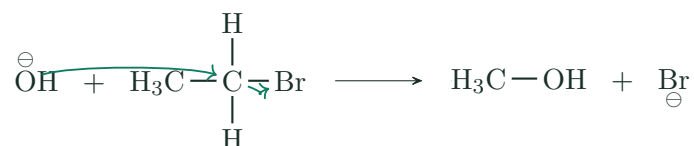
2. Multi-step synthesis

Scheme 2. Nitration of benzene followed by reduction to aniline.



3. Reaction mechanism

Scheme 3. Bimolecular nucleophilic substitution (S_N2): hydroxide attacks the carbon of bromomethane, displacing bromide via a backside attack.



The hydroxide lone pair forms the new C–O bond as the C–Br bond breaks heterolytically, giving methanol and bromide in a single concerted step with inversion of configuration.