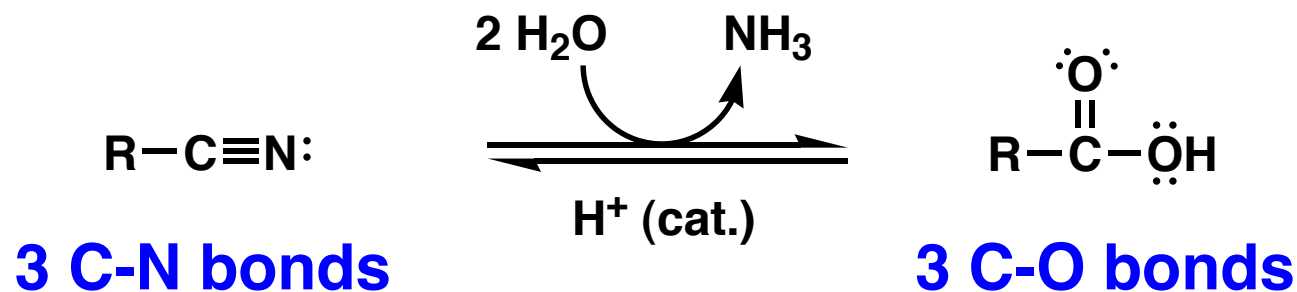


# Discussion Problem:

## (Provide a Mechanism for the Hydrolysis of Nitriles)

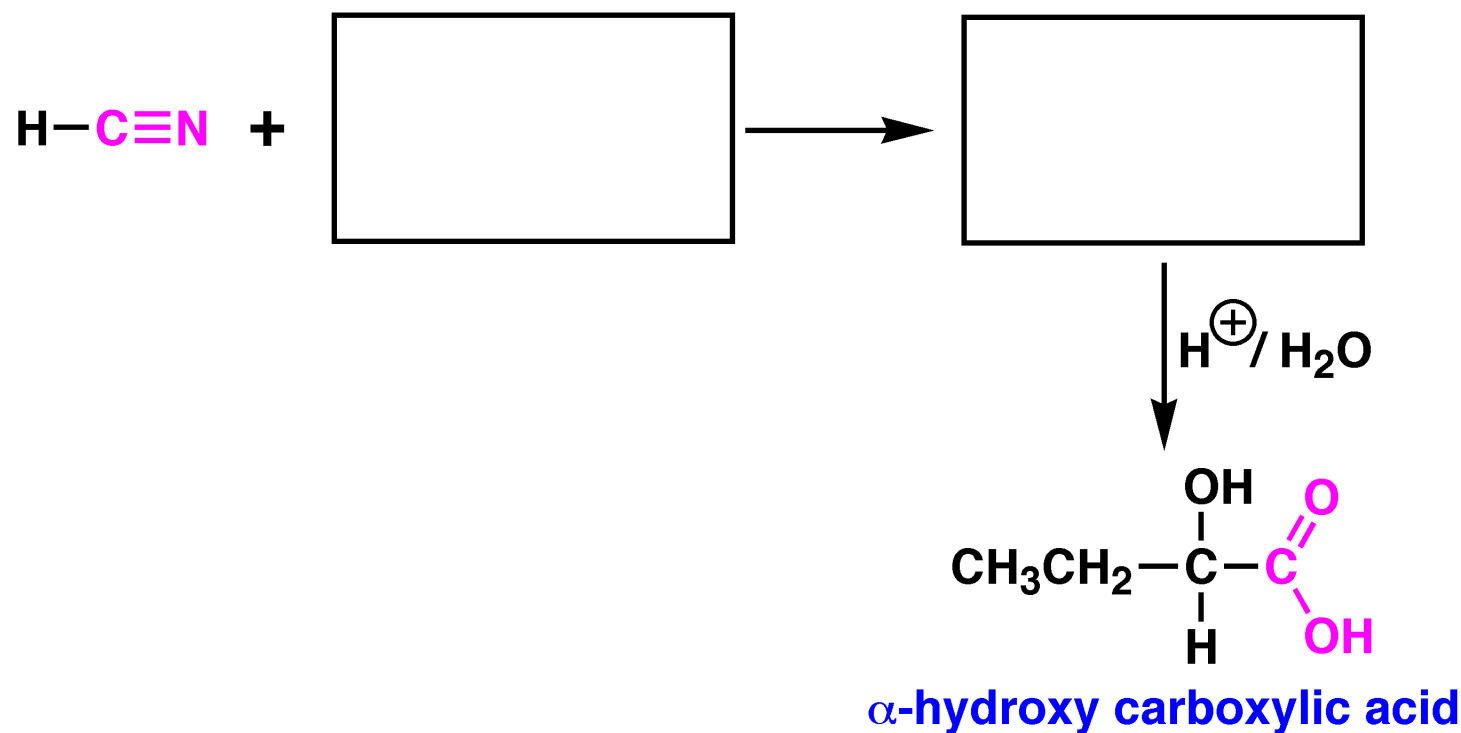
This is a problem in which a multiply bonded nitrogen is replaced by oxygen from water.



# Discussion Problem

## (Synthesis of $\alpha$ -hydroxy carboxylic acids)

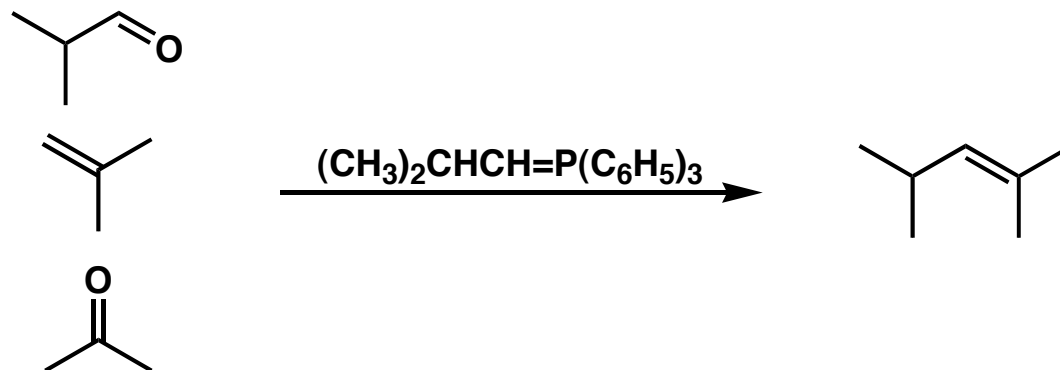
Supply the missing starting material and intermediate



Work backwards if you get stuck

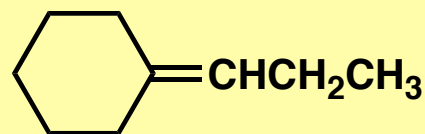
# Discussion Problem

## Wittig Reaction – Synthesis

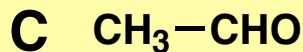
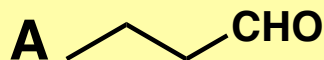


<http://wps.prenhall.com/wps/media/objects/725/743227/0092f.html>

What carbonyl compound and what phosphonium ylide are required for the synthesis of the boxed alkene?



carbonyl compound



phosphonium ylide

