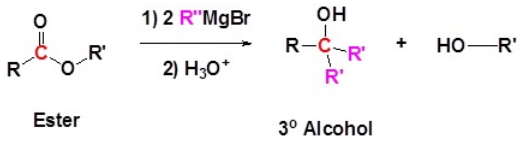
18.13: Reaction of Organometallic Reagents with Carboxylic Acid Derivatives

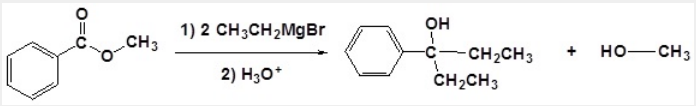
Addition of Grignard reagents convert esters to 3^{o} alcohols.

In effect the Grignard reagent adds twice.

General Reaction

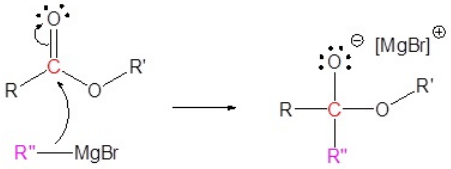


Example 1:

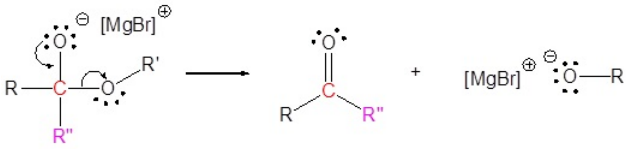


Mechanism

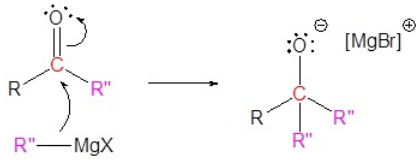
1) Nucleophilic attack



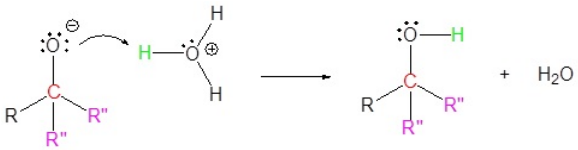
2) Leaving group removal



3) Nucleophilic attack

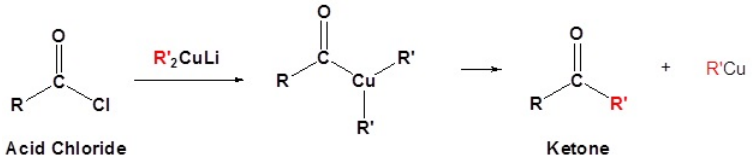


4) Protonation

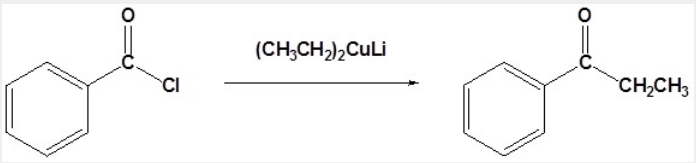


Organocuprate reagents convert acid chlorides to ketones

General Reaction



Example 1:



Contributors

- Prof. Steven Farmer (Sonoma State University)

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