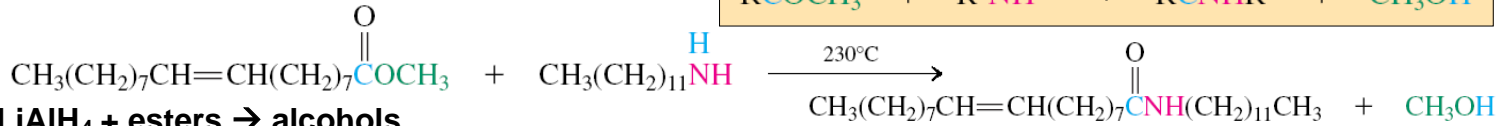
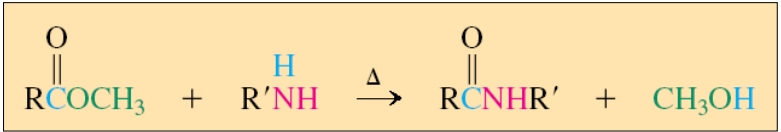
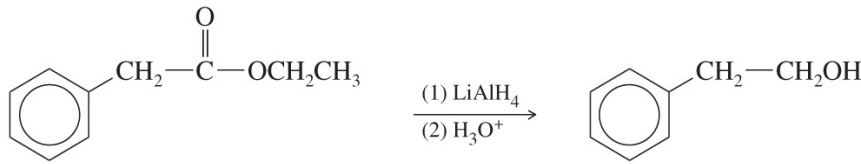


Amines + esters → amides

Amines more nucleophilic than alcohols.



LiAlH₄ + esters → alcohols

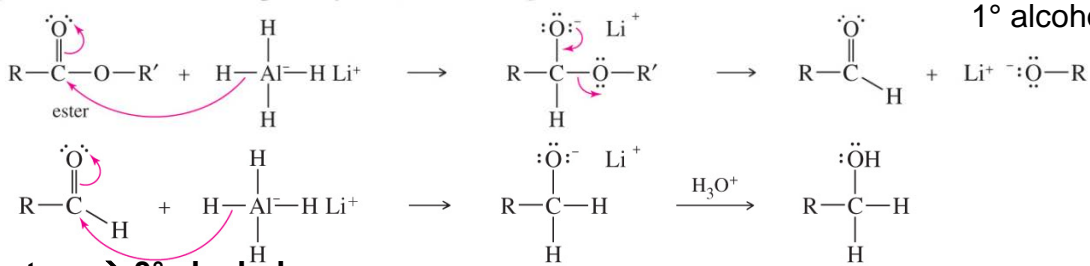


Esters, acids, and acyl chlorides

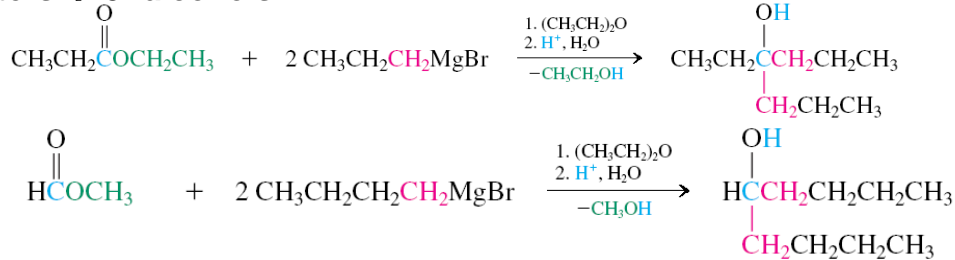


1° alcohol

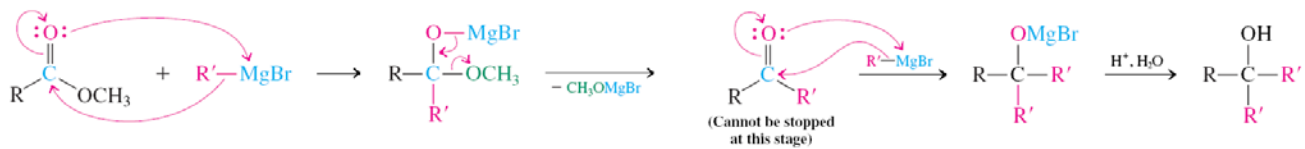
Mechanism



Grignard + esters → 3° alcohols



Mechanism

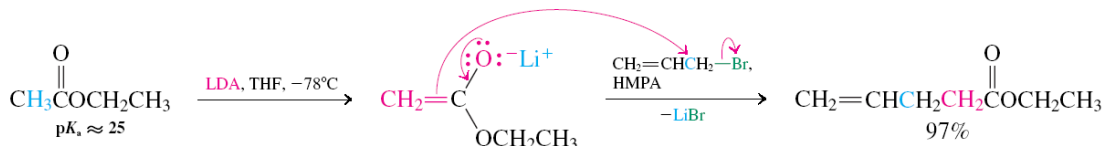


Ester + DIBAL → Aldehyde



Esters also form enolates

Esters w/ strong base at low T produce ester enolates (acidic α-hydrogens).
React like ketone enolates = alkylations



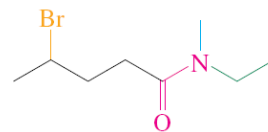
Can behave as strong bases, side reactions include E2 and deprotonations.

Amides

-e → -amide.

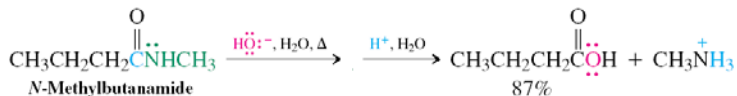
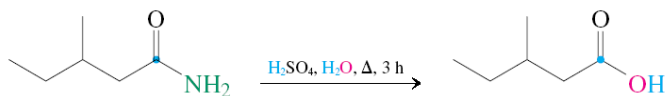
-ic → -amide.

cyclic -carboxylic acid → -carboxamide

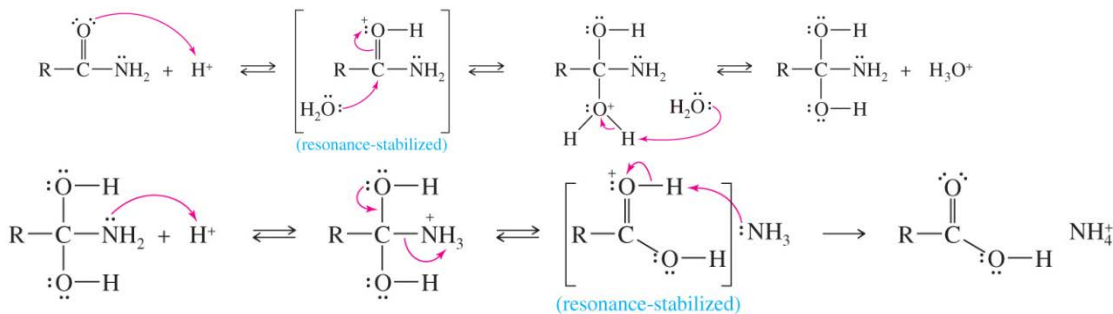


4-Bromo-N-ethyl-N-methylpentanamide
(A tertiary amide)

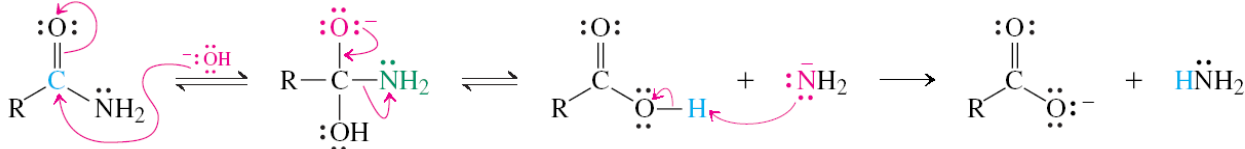
Amide + heat + acid/base → carboxylic acid



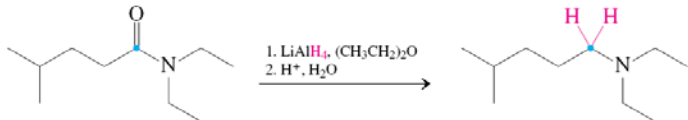
Acid Mechanism



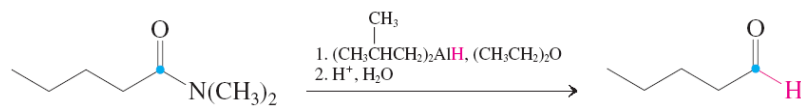
Base Mechanism



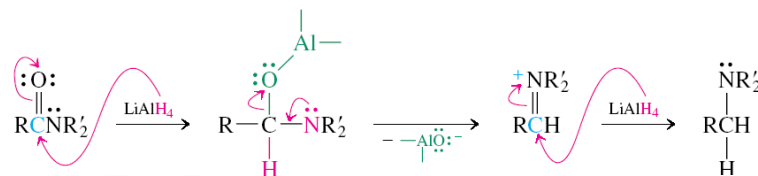
Amides + LiAlH₄ → amines



Amides + DIBAL → aldehydes

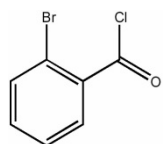


Mechanism

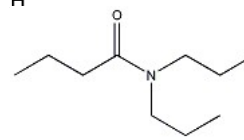


Practice

Nomenclature

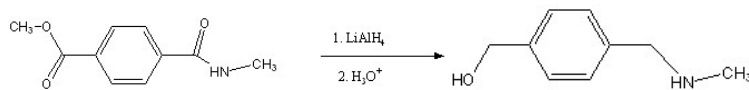
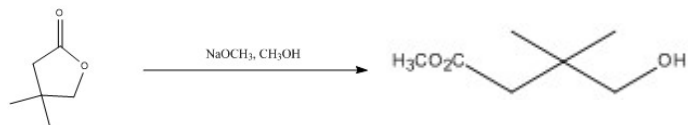


o-bromobenzoyl chloride



N,N-dipropylbutanamide

Predict Products



Fill in Reagents/Predict Products

