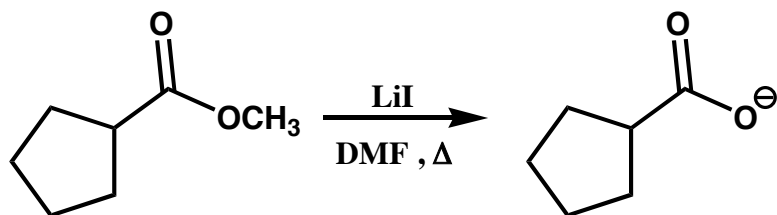
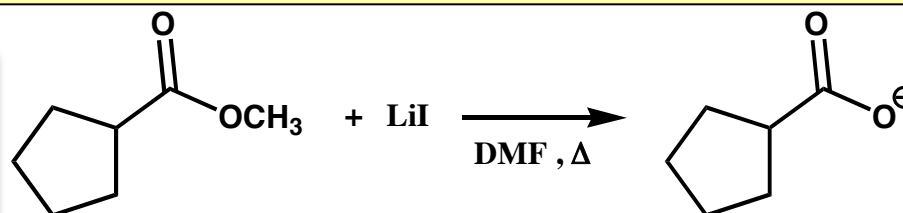


Conventions and Terms Used in Writing Chemical Equations

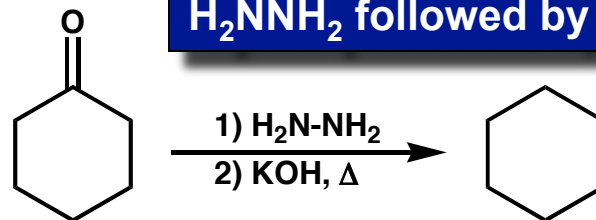
Chemists have developed a loose style for writing chemical transformations as equations. In a typical equation, one or more reactants (also called substrates) are combined with a reagent(s), and compounds are usually dissolved in a solvent. Reactions are often performed under conditions of heat (Δ) or light ($h\nu$). The conditions (solvent, temperature, etc.) are commonly listed above or below the reaction arrow. Sometimes reagents are on the left side of the reaction arrow, while other times reagents are listed above or below the reaction arrow. Very often the stoichiometry is not balanced. The following example is illustrative.

LiI is the reagent. Dimethylformamide (DMF) is the solvent. Here LiI is written to the left of the reaction arrow.



Here LiI is written above the reaction arrow.

Sometimes transformations are performed by subjecting the substrate to a sequence of reaction conditions. In such a case, the conditions are listed numerically above and / or below the reaction arrow, as shown.



Cyclohexanone is first treated with H_2NNH_2 followed by KOH and heat.

