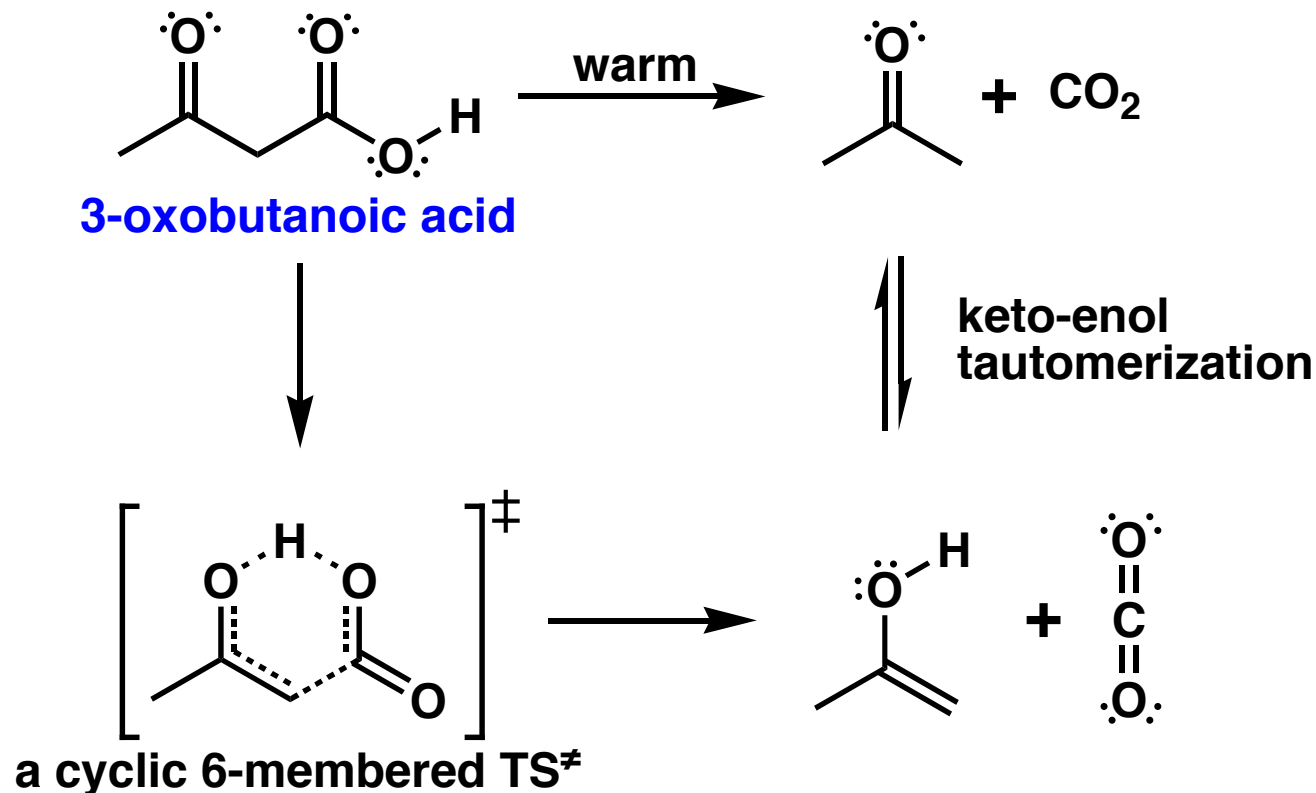


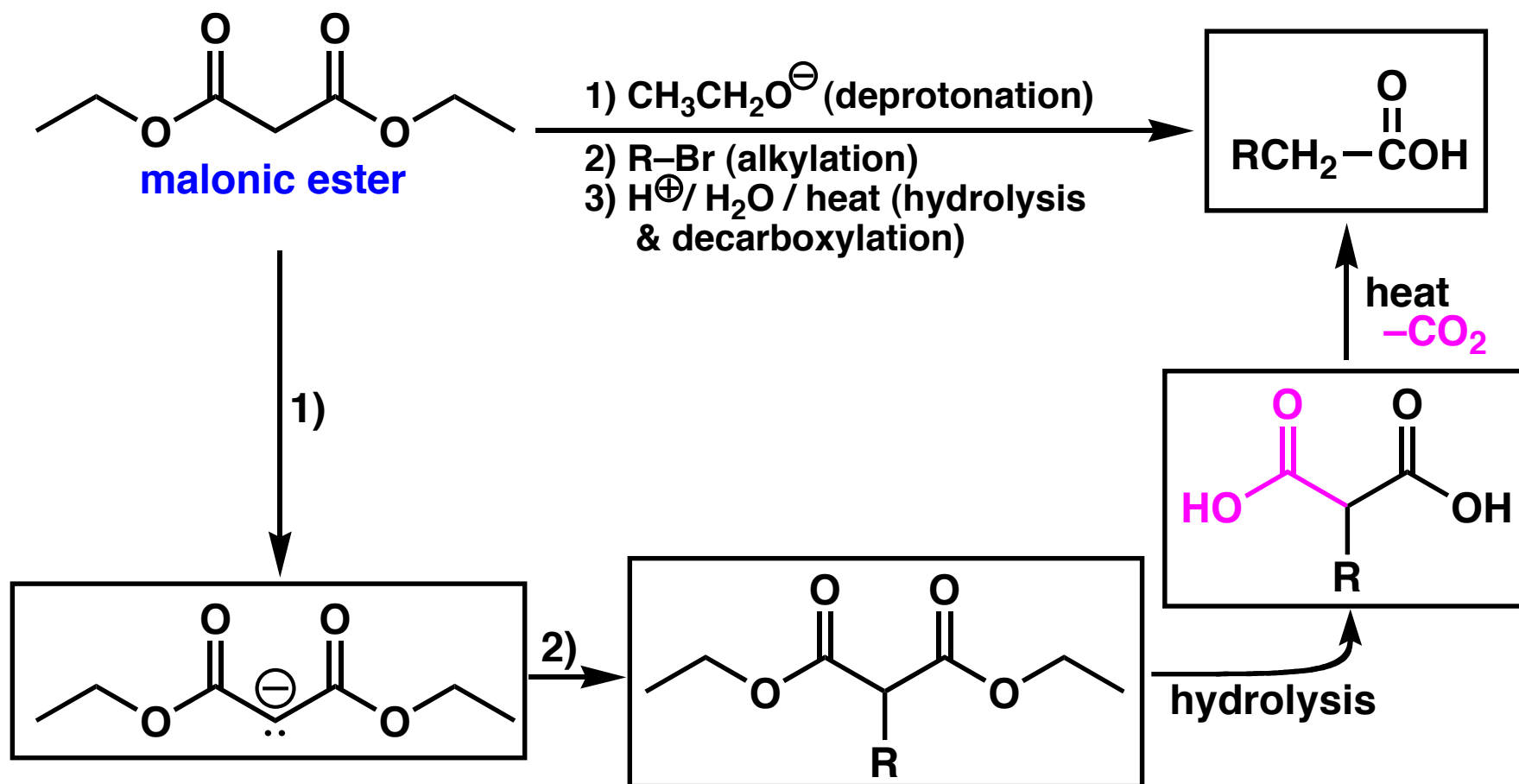
β -Ketoacids are Easily Decarboxylated

Decarboxylation is the loss of CO_2 from the carboxyl group of an acid. Most carboxylic acids are quite resistant to moderate heat. Exceptions are carboxylic acids that have a carbonyl group β to the carboxyl. These carboxylic acids are derived from Claisen condensations (following ester hydrolysis).



Alkylation of β -Dicarboxylic Esters (Malonic Ester Synthesis)

Other synthetic plans take advantage of the ease at which decarboxylation occurs when a carbonyl group is in the β position relative to the carboxylic acid. Here is a general synthetic route to carboxylic acids.



Alkylation of β -Ketoesters (Acetoacetic Ester Synthesis)

Here is a general synthetic route to methyl ketones.

