**Introductory Organic Chemistry II**
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**Module 06**
**Lecture 39**
**Weekly Intro - 6**

So, welcome. In this week, we will be looking at some of the reactions of enols and enolates. In the previous week, you looked at some of the simple reactions such as bromination, halogenation, and so on. Now, we will move on to some important carbon-carbon bond forming reactions.

So, you may know that formation of carbon-carbon bonds is one of the most fundamental problems in organic chemistry, how do we control carbon-carbon bond formation, and Aldol reactions are some of the most important reactions in carbon-carbon bond formation, especially in the biological context.

So, what we will be looking at here is the basics of the Aldol reaction, how to generate an enolate, how to control the reactivity of the enolate with other carbonyl compounds. And we will also be looking at some of the various other modifications of Aldol reactions. For example, we will be looking at intramolecular aldol reactions, and other related acceptors and donors as far as the Aldol reaction is concerned.

In addition, we will be looking at some important functional groups which are known as Enol Equivalents. So, these are 1,3-dicarbonyl compounds, which have a very acidic hydrogen. And because of this, one can use this to control alkylation reactions and other related Aldol reactions. So, we will be looking at these functional groups in some detail in this week.