

Lab on Fermentation

Organisms obtain their energy by breaking down molecules to get energy. In humans we need oxygen so that our mitochondria can efficiently breakdown glucose that has diffused into the cell. If oxygen is not present, the cell must continue to utilize the glycolytic pathway to keep producing ATP. In the absence of oxygen many organisms utilize fermentation to keep glycolysis with the reactants to keep making ATP. There are two types of fermentation. The first is referred to as Lactic Acid Fermentation. This is the breakdown of pyruvic acid into lactic acid. The other type of fermentation is alcoholic fermentation. These types of fermentation are vital to many industries. Beer, wine, and other alcoholic beverages are produced by alcoholic fermentation as well as bread and other risen dough products. Yogurt is produced by the process of lactic acid fermentation. In this lab you will observe the process of fermentation.

Fermentation in Yeast

1. Do some background research on a method that can measure the rate of fermentation.
2. Check and see if the materials needed are available.
3. Conduct a one-day procedure.
4. Write all the results up in a standard data book entry.