SUMMARY:

Fermentation in food processing is the process of converting carbohydrates to alcohol or organic acids using microorganisms —yeasts or bacteria—under anaerobic conditions. Fermentation usually implies that the action of microorganisms is desired. The science of fermentation is known as zymology or zymurgy. The term fermentation sometimes refers specifically to the chemical conversion of sugars into ethanol, producing alcoholic drinks such as wine, beer, and cider. However, similar processes take place in the leavening of bread (CO_2 produced by yeast activity), and in the preservation of sour foods with the production of lactic acid, such as in sauerkraut and yogurt. Apart from alcohol, widely consumed fermented foods include vinegar, olives, yogurt, bread, and cheese. In various parts of the world, more localised foods prepared by fermentation may also be based on beans, dough, grain, vegetables, fruit, honey, dairy products, fish, meat, or tea. Uses Food fermentation is the conversion of sugars and other carbohydrates into alcohol or preservative organic acids and carbon dioxide. All three products have found human uses. The production of alcohol is made use of when fruit juices are converted to wine, when grains are made into beer, and when foods rich in starch, such as potatoes, are fermented and then distilled to make spirits such as gin and vodka. The production of carbon dioxide is used to leaven bread. The production of organic acids is exploited to preserve and flavor vegetables and dairy products.

Food fermentation serves five main purposes: to enrich the diet through development of a diversity of flavors, aromas, and textures in food substrates; to preserve substantial amounts of food through lactic acid, alcohol, acetic acid, and alkaline fermentations; to enrich food substrates with protein, essential amino acids, and vitamins; to eliminate anti nutrients; and to reduce cooking time and the associated use of fuel.

There are many benefits of fermented foods to your diet such as Important nutrients, Optimizing your immune system, detoxification, cost-effectiveness, natural variety of microflora, makes food more digestible etc.