

## **Abstract**

*Fruits and vegetables are consumed at all times, and due to their convenient size; they are an excellent between-meal snack. Fruit juices are naturally rich in bioactive compositions like phenolic compounds. However, in some other cases heat processing may partially destroy them or significantly reduce their bioavailability, thus reducing beneficial health effects. Modern processing, packaging, ingredient technology and distribution systems are taken as a system that assure safe, stable and appealing fruit juice products in a convenient, economical form far from the raw material source or season. Fruits may contain different bioactive compounds, many of which may have antioxidant capacity. Many complex biochemical reactions are involved during the ripening process, such as the hydrolysis of starch and the synthesis of carotenoids, anthocyanins, and phenolic compounds in addition to the formation of various volatile compounds. The processing such as thermal pasteurization and sterilization, pulsed electric fields, high pressure, ultrasound, microwave treatment, and microfiltration aimed to preserve fruit juices due to their ability to inactivate a wide range of microorganism's and spoilage enzymes may have another effect on bioactive compounds. So that, avoiding over processing to save bioactive nutrients and following the best juice processing methods, adopting high energy transfer processing method such as high temperature short time pasteurization to reduce the treatment time, improving temperature and time combination in processing is recommended.*

**Key words:** *Processing; Unit Operation; Fruit Juice; Bioactive Composition; Nutritional Value.*