

ABSTRACT

Consuming rate of fruits and vegetables is rising as, fruits are associated with a variety of health advantages. Fresh-cut fruits and vegetables are being embraced by customers as a result of their desire for fresh and natural products, as well as a shift in their lifestyle. However, the problem for the fresh-cut market is to keep fresh-cut food fresh for an extended period of time. The fruit spoils quickly as a result of infection with several fungal diseases, which induce decay during storage and marketing and impair fruit quality. During past few years, there has been rise in interest for developing materials with film-forming capacity and antibacterial qualities that aid to enhance food safety and shelf life. In this regard, the current investigation is designed to discover techniques for enhancing the postharvest shelf-life of guava by the use of metal/metal oxide nanoparticles. In a nutshell, nanoparticles are manufactured, and various parameters are tuned to produce homogenous, stable nanoparticles. UV-vis, XRD, FT-IR, TEM, and other techniques are used to characterize the produced nanoparticles. The nanomaterials are used to provide a platform for encompassing the post-harvest shelf life of guava.