



Abstract

Fruits play vital role in prevention of diseases. Citrus fruits are not only edible but have numerous traditional applications. The main objective of this research was to assess the antioxidant capacity and free radical scavenging potential of some fruit juices and their wastes. Therefore three fruits i.e grape fruit (*Citrus paradisi*), pomegranate (*Punica granatum*) and orange (*Citrus sinensis*) were selected. In order to obtain some valuable components the crude methanolic extracts and juices were obtained. Qualitative examination of different phytochemical constituents was executed by different phytochemical analysis followed by some biological protocols as reported in the literature. According to various antioxidant assays the bioactivity of fruit extracts was in the order of Pomegranate > Grape fruit > Orange. The chemical composition of these three fruits were analyzed by high performance liquid chromatography to confirm the presence of curcumin, careophyllene oxide, ellagic acid, para coumaric acid and ergosterol as the major constitution causing the antioxidant capabilities.