

## **Total phenolics, flavonoids and antioxidant activity of tropical fruit pineapple**

### **Abstract**

Pine apple has several beneficial properties including antioxidant activity. The fruit of pine apple was extracted with ethyl acetate, methanol and water. The phenolic content of the extracts was determined by Folin–Ciocalteu method and antioxidant activity was assayed through some in vitro models such as antioxidant capacity by phosphomolybdenum,  $\beta$ -carotene-linoleate, and radical scavenging activity using  $\alpha,\alpha$ -diphenyl- $\beta$ -picrylhydrazyl (DPPH) method. The phenolic contents of the extracts as caffeic acid equivalents were found to be highest in methanol (51.1%) followed by ethyl acetate (13.8 %) and water extract (2.6 %). Antioxidant capacity of the extracts as equivalent to ascorbic acid ( $\mu\text{mol/g}$  of the extract) was in the order of methanol extract > ethyl acetate extract > water extract. In comparison with butylated hydroxyanisole (BHA), at 100 ppm of concentration, the antioxidant and free radical scavenging activities of the extracts assayed through  $\beta$ -carotene-linoleate and DPPH method were also found to be highest with methanol extract followed by ethyl acetate and water extracts. The results indicated that the extent of antioxidant activity of the extract is in accordance with the amount of phenolics present in that extract and the pine apple fruit being rich in phenolics may provide a good source of antioxidant.