

Figure 6: Standard Graph for Reducing Power Assay

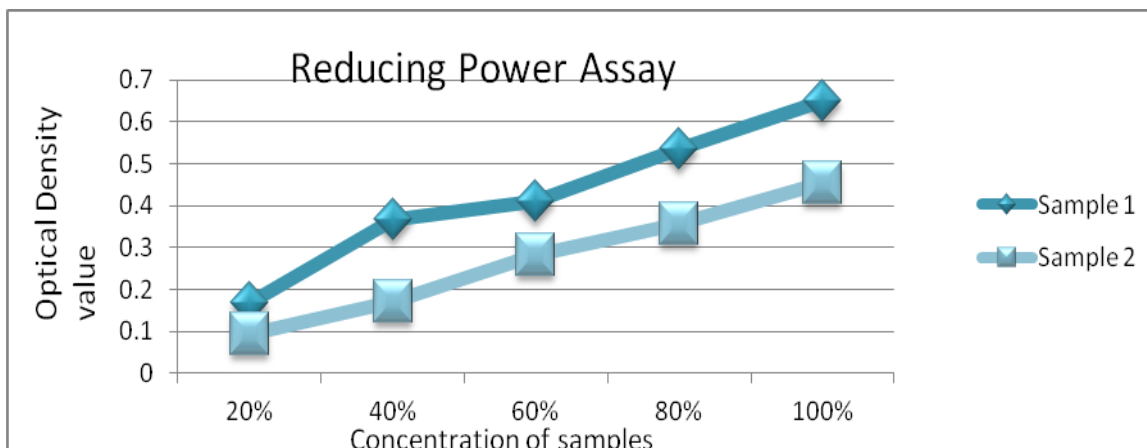


Figure 7: Antioxidant activity of given samples by Reducing power assay

Increasing absorbance at 700 nm indicates an increase in reducing capacity. Graph 2 indicates that OD value increased with the increase in the concentration of the samples. Sample 1 showed a better reducing power activity when compared to sample 2 (figure 6 and 7).

3.3 Total Antioxidant Activity

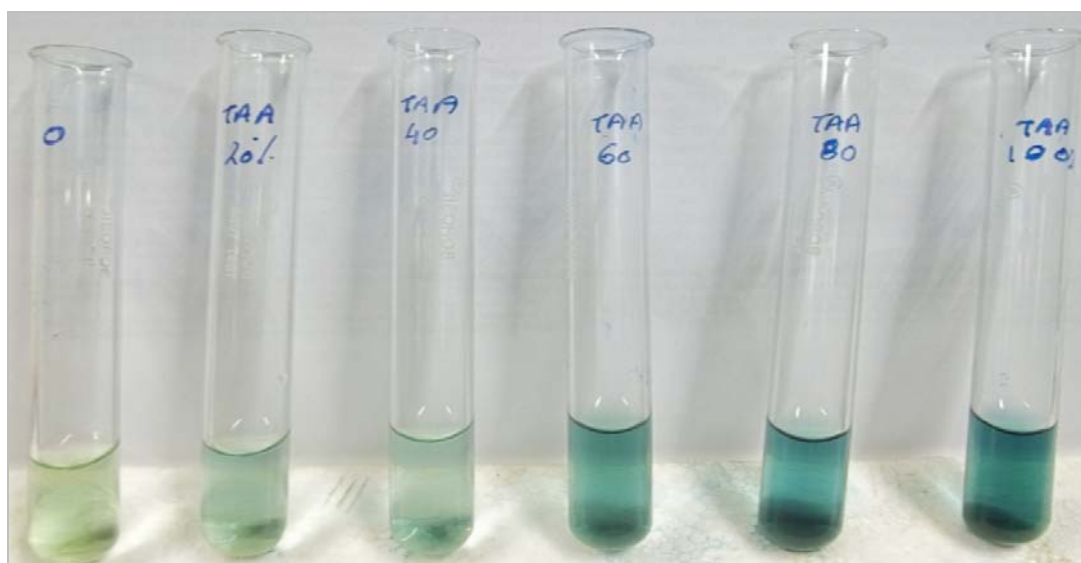


Figure 8: Total antioxidant Capacity assay of different dilutions of given sample

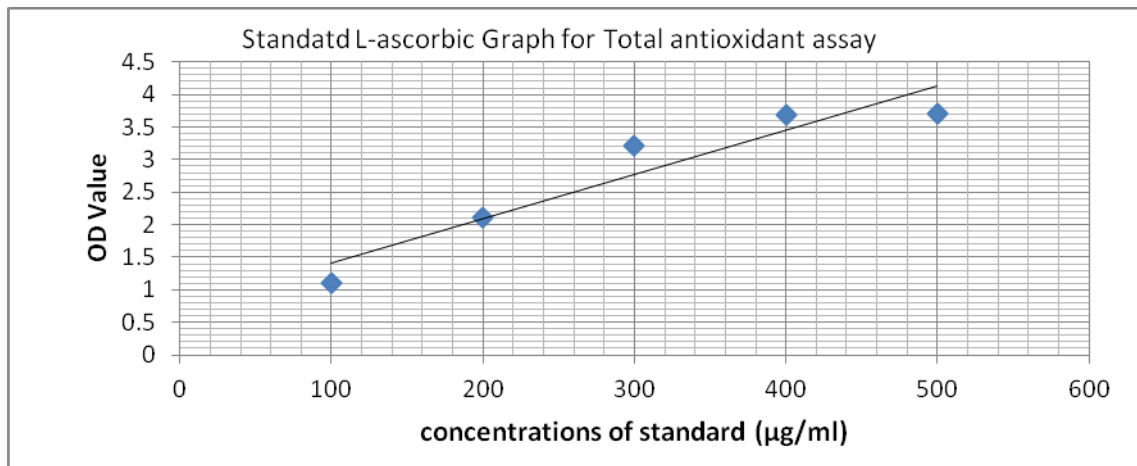


Figure 9: Standard Graph for Total Antioxidant Assay

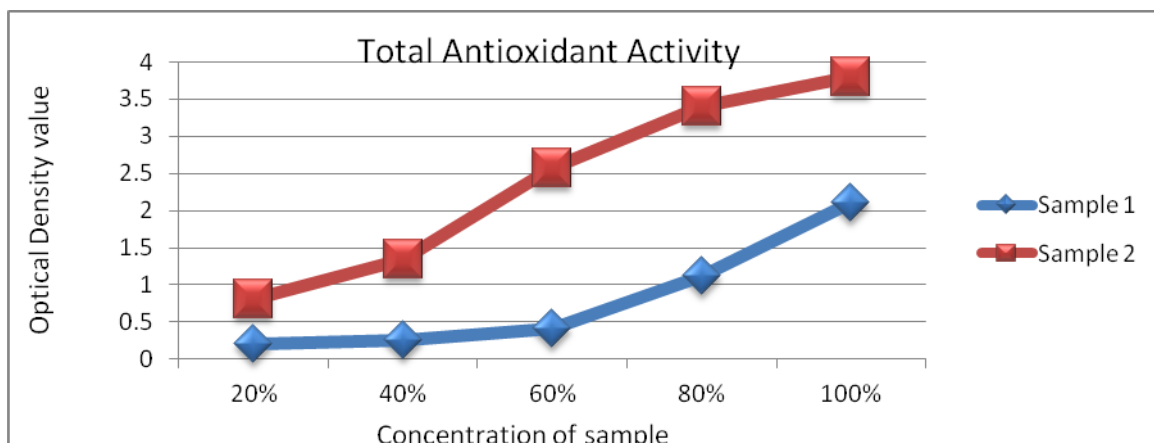


Figure 10: Total Antioxidant Activity Assay

Total Antioxidant assay was carried out for both the samples and was found that the optical density gradually increased with the concentration of the sample indicating that the samples had the capacity to reduce nascent atoms. The total antioxidant of sample 2 was found to be much higher than sample 1. Optical density of sample 2 showed OD value above 3.5 for undiluted sample whereas sample 1 showed OD value between 2-2.5 for undiluted sample (Figure 10).

4. Discussion

Alcoholic beverages conferred many advantages to the human species when consumed in moderation. It was the universal drug up until the advent of modern medicine, since its health benefits were obvious - alcohol relieved pain, stopped infection, and killed microorganisms and parasites in tainted water.

Fermented beverages, made from sweet fruits, honey and saccharified cereals, were likely discovered and utilized by humans at a very early date [22]. Hippophae rhamnoides recently have been proved to have a high medicinal property, because of its nutrient density of almost 200 active phytochemicals, among them unsaturated fats, carotenoids, and high amounts of vitamin C [23].

In many African countries, sorghum is used for local beer production. Sorghum has been proved to have phenolic acids like hydroxybenzoic and hydroxycinnamic acids [24]-[25] both free and bound as esters. Most of them are found in

usual lager beers, issued either from barley malt or from hop [26], studied the aging and consequent changes in flavor molecules of a top-fermented beer and found that after 6 months of aging, the concentration changes were recorded for acetate esters, ethyl esters, carbonyls, Maillard compounds, dioxolanes, and furanic ethers.

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