antioxidant activity against blank at concentrations above 12.5µg/mL. IC50 values of the samples were 587.68, 544.62 and 1261.40 respectively and 49.32 for BHT standard. The BHT equivalent radical scavenging activity of the extracts at IC50 was 0.084, 0.091 and 0.039 respectively. Supercritical fluid extraction exhibited significantly higher antioxidant activity when compared with water extract (p-value = 0.035). Extract from Soxhlet's extraction didn't indicate significant differences with the other two extracts at a significant level of 0.05 (p-values: A-B = 0.74; B-C = 0.057). This study indicates that extracts from cinnamon bark oleoresins extracted using the supercritical extraction method has higher antioxidant activity compared to water extracts but an equivalent antioxidant activity with extracts from Soxhlet's extraction.

Keywords: Cinnamon, antioxidant activity, DPPH

OP 125: Assessment of the applicability of Supercritical fluid extraction method in preparing Cinnamomum zeylanicum bark oleoresins extracts based on antioxidant assays

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Cinnamon extracts have versatile industrial applications mainly focusing on its ability to act as an antioxidant. Cinnamon bark and oleoresins are the major raw materials for the industrial cinnamon extracts. Studies have shown that the antioxidant activity of the cinnamon extracts is subjective to their processing conditions. Putatively superior supercritical extraction (A) has been compared with Soxhlet's extraction (B) using cinnamon oleoresin and the water extract (C) of cinnamon bark for their antioxidant activities. Extracts A, B and C were assayed for their antioxidant activity through radical scavenging activity using DPPH assay. The linearity range for the analysis was 12.5µg/mL – 800µg/mL using butylated hydroxy toluene (BHT) standard. All the extracts indicated significant