ABSTRACT:

Spermadictyon suaveolens is a plant of great medicinal value. It belongs to Rubiaceae the family whose members are of great economic and medicinal importance.Pytochemical analysis was performed on it to determine constituents which indicate the presence of Alkaloids, Flavonoids, Triterpenes, Phenolic compounds. The alkaloids are present in the highest amount as 48.6mg/kgdry weight. While the flavonoids and phenolic compounds are not present in too great amount, while tannins are totally absent in our plant. Antioxidant activities were also performed in our plant, For this purpose different assays like DPPH, FRAP, Lipid Peroxidation Assay. In the DPPH assay, maximum activity was found in the methanolic extract of flowers as 44.03% and the total range of DPPH extracts vary from 2.87% to 44.03%. In the FRAP assay maximum ferric reducing antioxidant power was in the methanolic extract of leaf as 8090µM. and the total values of extracts ranged from 164µM to 8090 µM equivalent to $FeSO_4.7H_2O$.Similarly, in the Lipid peroxidation assay, greatest values were found after 72 hours in the methanolic extract of bark as, 98.97 and 84.28% respectively.In the GCMS analysis, a solution of extracts of concentration of 1mg/ml of extracts was prepared. Then 1µl of solution was injected in the column of GCMS.A number of components were identified according to their elution order as **Crocetane,** Trans squalene, **(+)-Ascorbic acid-2,6-Hexadecanoate,** Lingocerol, **Methyl Palmitoleinate,** Heneicosane, Phytol, Methyl Petroselinate, **Lupenone,** β-Amyrenol, Lanosterol, n-Cetyl alcohol, Methyl(8E)-8 Octadecanoic acid, Sucrose.

Curcuma longa and Curcuma aromatica belongs to family Zingiberaceae. These plants possess medicinal and economic importance. Antioxidant and Enzyme inhibition activities were performed on these plants and also GCMS analysis was done. In the DPPH assay, The oil of *Curcuma aromatica* showed % inhibition of **82.9µg/ml** and the IC50 value was calculated to be**10.6,** and among the column fractions the greatest value was found to be**45.6µg/ml** in CA4. whereas, oil of *Curcuma longa* showed % inhibition of **44.76 µg/ml** and the IC50 value was calculated to be**79.39,** and among the column fractions the greatest value was found to be**57.60µg/ml** in CL7 with the calculated IC50 of**180.5.In the** enzyme inhibition assay,