Results area percentage were presented in table

Resultsand Discussion

Identificationof Phytocompounds of C.

guianensis. Gaschromatography and Mass spectroscopy have a various field of applications. The primaryarea of use is in the separation and analysis of multi- component mixtures suchas essential oils, hydrocarbons and solvents 12. Gas Chromatography MassSpectroscopy, a hyphenated system which is a very compatible technique and themost commonly used technique for the identification and quantification ofphytocompounds from the herbal medicinal plant origin The unknown phytocomponents in a complex mixture can be determined by theinterpretations by matching the spectra with known reference spectra 13.

GC-MS chromatogram of the ethyl acetate extract of Couroupita guianensis (Fig1) shows 17 peaks and has been identified after comparison of the massspectra with NIST_MSMS, REPLIB and MAINLIB, indicating the presence of 11phytocompenents 14. The secondary metabolites with their retention time, Molecularformula, Molecular weight and concentration peak area percentage were presented in Table 1. GC-MS analysis of ethylacetate extract revealed the presence of 11 different compounds namelyN-(-)-jasmonoyl-(s)- , Isopropyl amine, Tetracosane, Nonadecane, Octacosane, Squalene, Ergosta-7, 22-dien-3-, 4, 4, 6a, 6b, 8a, 11, 11, Alpha-amyrin, Lup-20(29)-en-3-one, Lupeol. The retention time , molecular weight and therelative percentages of the compounds present in aerial parts of Couroupita guianensis were recorded in Figure1 and table 1.

TheGC-MS spectrum confirmed the presence of 11 major components with the retentiontime 2. 053, 2. 12. 31. 98, 33. 07, 34. 13, 35. 17, 36.

18, 36. 18, 36. 80, 37. 17, 38.

16, 39. 15, 40. 16, 44. 15, 45. 03, 45. 33, 46. 34 and 46. 64 respectively (Table 1).

The name of thecompound, molecular weight of active principles, molecular formula andstructure of the component of the plant material t material were determined15. N-(-)-jasmonoyl-(s)- is endogenous bioactive jasmonateand it has thehormone triggered activation of jasmonate signaling pathways and structurallysimilar to coronatine 16. Isopropylamine (2- Aminopropane) is a substances which is used as a food flavouring agent.

The pure chemical is corrosive to the eyes, skin, and respiratory tract. Contact with the liquid or vapor can cause severe burns of the eyes and skin; can cause blurred vision or seeing halos around lights, with loss of vision andscarring. Corrosive on ingestion. Swallowing the liquid may cause chemicalpneumonitis. Higher exposures can cause pulmonary edema and this can cause death 17. Figure 2 shows the HPLC analysis of ethyl acetate extractof aerial parts of couroupita guianensiswas carried out with the mobile phase methanol: water in the ratio 95: 5 gave atotal of 25 peaks at retention time 2.

171, 2. 871, 3. 014, 3.

637, 4. 048, 4. 455, 4.

580, 4. 741, 5. 417, 5. 896, 6.

676, 7. 311, 8. 563, 9.

343, 10. 574, 10. 826, 12. 430, 13.

069, 14. 607, 15. 231, 16. 504, 16. 957, 19. 473, 25. 670, 30. 669 (Figure : 2).

The highest peak was seen at the retention time 3. 014 minute 17. Figure 3 shows the antibacterial activity of the control drugpenicillin and ethyl acetate extract of Couropita guianensis on selected humanbacterial pathogens. The extract of theplant shows more significant effects on the pathogens as compared to penicillinin particularly the ethyl acetate extract of Couropita guianensis shows theconsiderable antibacterial efficacy on P. aeroginosa, B. cereus and S.

flexneri ascompared to S. typhi and E. coli. Figure 4 shows the minimum fungicidalconcentration of the control drug Penicillin and ethyl acetate extract of themedicinal plant Couropita guianensis against selected human fungal pathogens. Ethyl acetate extract of C.

guianensis shows significant efficacy against fungalpathogens especially Mucor sp, Candida albicans and A. fumigatus as compared toA. niger and A. flavus this indicates that the plant extract possesses the strongantifungal activity. Plant extracts or plant based compounds or phytocompoundsare likely to provide a highly valuable source of new medicinal agents Thepresent study emphasizes that the antibacterial and antifungal activity ofcouropita guianensis on selected human pathogens due to the presence of

variousphytochemical compounds and their antioxidant potential. ConclusionTheidentification of different biologically active compounds in the ethyl acetateextract of a medicinal plant Couropitaguianensis and their role in antimicrobial efficacy on selected humanpathogens warrants further biological and pharmacological studies.