

TLC and GC-MS analysis of fermented wood "Nikhra" petroleum ether fraction of Combretaceae spp. Combretum hartmannianum and Terminalia laxiflora

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Abstract

This study aims to analysis fractions (petroleum ether, chloroform, methanol and aqueous) fermented wood Nikhra of Combretaceae spp (Combretum hartmannianum and Terminalia laxiflora) analysis it by using chromatographic and spectroscopic analysis. Petroleum ether Nikhra fraction analysis with TLC and spray TLC with vanillin H₂SO₄ (pink) (B1, B2), R_f values (0.84, 0.81), were expected to be phenolic, with vanillin HCl (red) compounds spots (B2) with R_f values (0.81) was expected to be catechin and with vanillin H₃PO₄, blue-violet zones compounds spots (A1, A2, A3), (B1, B2, B3, B4), with R_f values (0.88, 0.78, 0.67), (0.84, 0.81, 0.67, 0.59), respectively were expected to be lignans. Petroleum ether fermented wood "Nikhra" fraction was divided into two types of compounds classes aromatic and non-aromatic and hence compounds were classified to phenolics and terpenoids compounds by GC/MS. Fragrant aromatics or terpenoids were targeted in this part of study. GC-MS analysis gave a spectrum of fragrance aromatic compounds (phenolics) in the petroleum ether Nikhra fractions of T. laxiflora, was Lup-20(29)-en-3-ol, acetate, (3 β) and Tetracosamethylcyclododecasiloxane, main terpenoids compounds were eicosamethylcyclodecasiloxane. Main fragrance aromatics compound in the petroleum ether Nikhra fraction of C. hartmannianum was 2-tert-Butyl-5-(hydroxymethyl)-4-formylfuran, and main terpenoids compound was Tetracosamethylcyclododecasiloxane.

Biography:

Noha Fadl currently doing Ph.D in Phytochemistry department as a research field at The National Centre for Research, Sudan.

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