

Journal of Chemical, Biological and Physical Sciences



An International Peer Review E-3 Journal of Sciences

Available online at www.jcbpsc.org

Section E: Plant Biotechnology

CODEN (USA): JCBPAT

Research Abstract

Cell Suspension Culture Of *Bursera linanoe* For Production of Linalool And Linalyl Acetate

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Abstract: For the production of monoterpenes linalool and linalyl acetate from *Bursera linanoe* suspension culture, callus was obtained with the combination of *Naphthaleneacetic acid* (3.0 mg/L⁻¹) and 6-Benzylaminopurine (0.5 mg/L⁻¹), using axillary buds as explants. The kinetic growth of *B. linanoe* cell suspension culture growing in flasks showed an exponential increase up to 9 days of culture time reaching a maximum biomass of 11.16 gDWL⁻¹. During the 12 days of culture, cell viability was maintained between 60-70%. In contrast, when cells were grown in a bioreactor, showed an increase in biomass of 22.26 gDWL⁻¹ on day 7 and cell viability was maintained from 75 to 85%. Using gas chromatography/mass spectrometry, linalool and linalyl acetate were identified in suspension culture.

Keywords: *Bursera linanoe*, Cell Suspension Culture, Linalool, Linalyl Acetate

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