

Abstract

The fragrance and flavoring agents present in the leaves of *Eucalyptus camaldulensis* Dehn were recovered by following microwave-assisted hydrodistillation protocol along with surfactant using Clevenger apparatus and Soxhlet apparatus for non-volatile fragrance and flavoring agents. Central Composite Design in Response Surface Methodology was followed for hydrodistillation. Then, the critical analysis of response yield gave the optimum conditions for best recovery of fragrance and flavoring agents (temperature (85°C), microwave time (46 seconds), microwave power (100) and Triton X-100 (2 mL)) to get the maximum yield of 1.4 mL. The methanolic extract was obtained from the leaves using Soxhlet Apparatus. GC-MS analysis of hydro-distilled and methanolic extracts confirmed the chemical constituents present in the extracts. Eucalyptol, Menthol and γ -terpineol were the major fragrance and flavor causing agents in the leaves of *E.camaldulensis*. But the GC-MS analysis of methanolic extract also indicated the presence of fragrance and flavoring agents (α -pinene, Eucalyptol and Trans-pinocarveol) in non-volatile extract although in minor concentration.