

International Conference and Expo on

Separation Techniques

August 10-12, 2015 San Francisco, USA

GC-MS analysis of essential oils of leaves and fruits of *Eucalyptus globulus* plant

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The aim of the present study was to investigate the differences in chemical composition of essential oils extracted from leaves and fruits of the Algerian *Eucalyptus globulus* (*E. globulus*) plant, using a semi quantitative gas-chromatography coupled with mass spectrometry (GC/MS) method. The oil extraction yields were about $2.53 \pm 0.1\%$ for the leaves and $3.11 \pm 0.4\%$ for the fruits. The GC/MS analysis allowed identifying 30 volatile compounds for essential oil from leaves (LO) and 34 for the essential oil from fruits (FO). Monoterpenes and oxygenated monoterpenes are present at a high percentage in leaves essential oil (86%) while sesquiterpenes and oxygenated sesquiterpenes compounds are the major compounds present in the fruit essential oil (74%). The results revealed that in the fruit essential oil, aromadendrene is the major sesquiterpenes compound (1027 mg/L), followed by globulol (1147 mg/L) and ledene (152 mg/L). As a comparison, in the leaves, 1, 8-cineol (1568 mg/L) is the major compound followed by isovaleraldehyde (285 mg/L) and α -carveol (155 mg/L).

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