

Extraction of Oil from Eucalyptus Camadulensis Using Water Distillation Method

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ABSTRACT

This work was conducted to study the extraction of eucalyptus oil from natural plants (*Eucalyptus camaldulensis* leaves) using water distillation method by Clevenger apparatus. The effects of main operating parameters were studied: time to reach equilibrium, temperature (70 to 100°C), solvent to solid ratio (4:1 to 8:1 (v/w)), agitation speed (0 to 900 rpm), and particle size (0.5 to 2.5 cm) of the fresh leaves, to find the best processing conditions for achieving maximum oil yield. The results showed that the agitation speed of 900 rpm, temperature 100°C, with solvent to solid ratio 5:1 (v/w) of particle size 0.5 cm for 160 minute give the highest percentage of oil (46.25 wt.%). The extracted oil was examined by HPLC