

Chemical Variability of the Essential Oil of *Juniperus phoenicea* var. *turbinata* from Algeria

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Abstract/Résumé : The chemical composition of 50 samples of leaf oil isolated from Algerian *Juniperus phoenicea* var. *turbinata* L. harvested in eight locations (littoral zone and highlands) was investigated by GC-FID (in combination with retention indices), GC/MS, and ¹³C-NMR analyses. The composition of the *J. phoenicea* var. *turbinata* leaf oils was dominated by monoterpenes. Hierarchical cluster and principal component analyses confirmed the chemical variability of the leaf oil of this species. Indeed, three clusters were distinguished on the basis of the alpha-pinene, alpha-terpinyl acetate, beta-phellandrene, and germacrene D contents. In most oil samples, alpha-pinene (30.276.7%) was the major compound, associated with beta-phellandrene (up to 22.5%) and alpha-terpinyl acetate (up to 13.4%). However, five out of the 50 samples exhibited an atypical composition characterized by the predominance of germacrene D (16.722.7%), alpha-pinene (15.820.4%), and alpha-terpinyl acetate (6.122.6%).

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