

**Composition and antimicrobial activity of the essential oil of *Achillea odorata* L. subsp. *Pectinata* (Lamk) ar. *Microphylla* (Willd.) Willk. from Northwestern Algeria**

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**Abstract :**

The chemical composition of the essential oil isolated from aerial parts of *Achillea odorata* L. subsp. *pectinata* (Lamk) var. *microphylla* (Willd.) Willk. from Algeria, was investigated by GC (retention indices) and <sup>13</sup>C-NMR. During the full flowering period, the major components were camphor (22.9–26.3%), 1,8-cineole (15.7–17.8%) and  $\alpha$ -pinene (11.3–12.5%). At the end of flowering, thymol (2.7–4.5%) and iso-thymol (1.3–2.7%) were also present at appreciable contents. The antimicrobial activities of the essential oil were tested against nine microorganisms (four bacteria and five fungi). The essential oil exhibited moderate inhibitory effects on *A. alternaria*, *A. fumigatus* and *Cl. herbarum*, with a minimum inhibitory concentration of 4  $\mu$ L/mL and 5  $\mu$ L/mL.

**Keywords :** *Achillea odorata* L. subsp. *pectinata* (Lamk) var. *microphylla* (Willd.) Willk. – Lamiaceae – essential oil composition – camphor – 1,8-cineole – antimicrobial activity.

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