

SHORT COMMUNICATION

A detailed study of the volatile components of *Plectranthus asirensis* of Saudi Arabian origin

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ABSTRACT

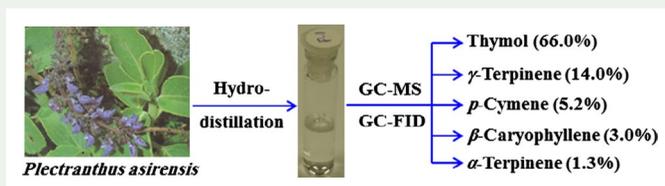
Essential oil composition of *Plectranthus asirensis* grown in Saudi Arabia was chemically analysed for the first time by various gas chromatography techniques (GC–MS, GC–FID, Co–GC, LRI determination and database and literature searches) using two different stationary phase columns (polar and nonpolar). This analysis led to the characterisation of a total of 124 components representing 98.5% of the total oil composition. The results revealed that *P. asirensis* oil was mainly dominated by monoterpenoids (90.7%) in which most representative constituents were thymol (66.0 ± 0.36%), γ -terpinene (14.0 ± 0.18%), *p*-cymene (5.2 ± 0.06%) and β -caryophyllene (3.0 ± 0.03%). It is worth mentioning here that this is the first report on the phytochemical constituents of *P. asirensis*.

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KEYWORDS

Lamiaceae; *Plectranthus*, essential oils; thymol; γ -terpinene; *P. asirensis*



1. Introduction

Plectranthus asirensis J.R.I. Wood is an intensely aromatic stout branching shrub with large downy leaves and about 1.5-cm-long deep violet flowers in terminal spikes. It belongs to the important family Lamiaceae (Originally known as Labiateae), one of the most widely distributed plant groups, which contains about 236 genera and over 7000 species (Collenette 1985; Harley et al. 2004). Flower spikes of *P. asirensis* are sometimes very hairy (Collenette 1985). In Saudi Arabia, *P. asirensis* is locally famous with Arabic name ‘Shar’ and famous for its use in traditional medicine for diaper rash and itching and as an antiseptic for wound dressing (Abulfatih 1987a; Abulfatih 1987b; Thomas 2015). Antimicrobial activity of this plant against various pathogenic bacteria has also been reported (Marwah 2013). Essential oil composition

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