



6th International Congress on Medicinal and Aromatic Plants *CIPAM 2016*



29 May -1 June
Vila Galé Hotel
Coimbra | Portugal

Book of Abstracts



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6th International Congress of Aromatic and Medicinal Plants (CIPAM 2016)
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Editors: Lígia Salgueiro; Carlos Cavaleiro; Célia Cabral

Publisher: Universidade de Coimbra. Reitoria. Faculdade de Farmácia

Printer: Pantone4

Legal deposit:

ISBN: 978-989-95050-1-8

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P103. Phenolic composition of four sage species: *Salvia farinacea*, *Salvia mexicana*, *Salvia greggii* and *Salvia officinalis*

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Keywords: *Salvia*, Lamiaceae, phenolic characterization, caffeic acid derivatives

Salvia species are used worldwide for medicine purposes. In general, these medicinal plants have high amounts of flavonoids and phenolic acids, that are thought to be closely related to their health properties [1,2].

In this work, the aerial parts of *Salvia farinacea*, *Salvia mexicana*, *Salvia greggii* and *Salvia officinalis* were extracted with hot water [3]. Extracts were evaluated for their total phenolic content by an adaptation of the Folin-Ciocalteu method and further analysed by high performance liquid chromatography associated with electrospray mass spectrometry (HPLC-DAD-ESI-MSⁿ) [4], in order to identify their individual phenolic constituents. The aqueous extracts of *S. farinacea*, *S. mexicana*, *S. officinalis* and *S. greggii* contained, respectively, 106±13, 159±38, 175±46 and 136±1 µg GAE/mg of total phenolics. These four species were characterized by a clear prevalence of caffeic acid derivatives, in particular of rosmarinic acid (MW 360), that is generally the most abundant phenolic compound in *Salvia* species [2,3]. *S. mexicana* and *S. officinalis* contained moderate amounts of salvianolic acid B (MW 718). Among these two, *S. mexicana* was richer in *O*-caffeoylquinic acid (MW 354), while the latter presented high amounts of salvianolic acid K (MW 556) and moderate amounts of its structural isomer. All the extracts were enriched in flavones: *S. farinacea* and *S. officinalis* contained high amounts of luteolin-*O*-glucuronide while *S. mexicana* contained luteolin-*C*-glucoside with respective characteristic mass spectrometry fragmentation pattern *m/z* at 461→285 and *m/z* at 447→357, 327. Similarly, *S. greggii* extract presented high content of luteolin-7-*O*-glucoside ([*M*-H]⁻ at *m/z* 447→285) and luteolin-*C*-glucoside and moderate quantities of apigenin-*C*-hexoside ([*M*-H]⁻ at *m/z* 431→341, 311). Further studies are being undertaken in order to understand the contribution of these phenolic constituents in the biological activities of *Salvia* plants.

Acknowledgements: Financial support of FCT and QREN, FEDER, and COMPETE, for funding the QOPNA research unit (project PEst-C/UI0062/2013; FCOMP-01-0124-FEDER-037296).

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