



# 10º Encontro Nacional de Cromatografia

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COM O ALTO PATROCÍNIO DE SUA EXCELÊNCIA



*O Presidente da República*

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## Authors / Autores

António M. Peres (Instituto Politécnico de Bragança, Portugal)

Lillian Barros (Instituto Politécnico de Bragança, Portugal)

Luís G. Dias (Instituto Politécnico de Bragança, Portugal)

Isabel C.F.R. Ferreira (Instituto Politécnico de Bragança, Portugal)

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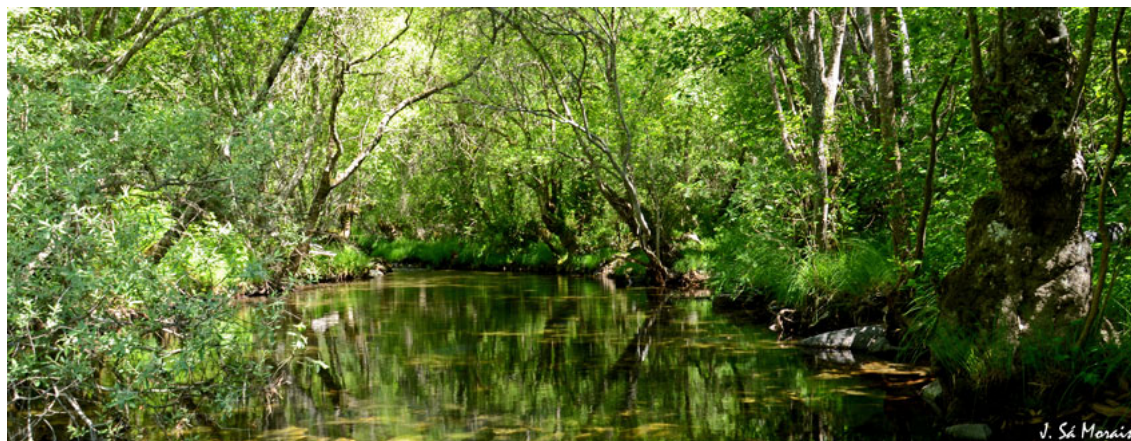
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	OC-26	Multidetetection of antibiotics in edible tissues: evolution of analytical strategies <b>Andreia Freitas</b>
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	OC-31	The volatile profile for discrimination of lavender and heather honey, using solid phase microextraction and gas chromatography-mass spectrometry <b>Soraia Falcão</b>
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## OC-31

# The volatile profile for discrimination of lavender and heather honey, using solid phase microextraction and gas chromatography-mass spectrometry

**Soraia I. Falcão<sup>a</sup>**, Elsa Caveiro<sup>a</sup>, Paulo Russo-Almeida<sup>b</sup>, M. Carmen Sejjoc, Vitor Martins<sup>a</sup>, Miguel Vilas-Boas<sup>a,\*</sup>

<sup>a</sup>*Centro de Investigação de Montanha (CIMO), ESA, Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal*

<sup>b</sup>*Laboratório Apícola - LabApisutad, Universidade de Trás-os-Montes e Alto Douro (UTAD), Departamento de Zootecnia, 5000-801 Vila Real, Portugal*

<sup>c</sup>*Departamento de Biología Vexetal e Ciencia do Solo, Faculdade de Ciencias, Universidade de Vigo, Campus As Lagoas, 32004 Ourense, Spain*

\*mvboas@ipb.pt

Honey is a natural product produced by *Apis mellifera* bees from the nectar or secretions of plants, which has a long history of human consumption. It is also used in various foods and beverages as a sweetener and flavouring. The main parameters of honey quality, which also influence its price, are derived from its botanical origin. Honey volatiles have been used as markers for its authenticity. They may arise from the nectar source, from the transformation of plant compounds by the honeybee, directly generated by honeybee, from heating or handling during honey processing and storage or from microbial or environmental contamination [1].

The aim of this work is the discrimination of monofloral *Lavandula* spp. and *Erica* spp. honeys through its volatile profile. For that, eighteen samples from both lavender and heather honey, were analyzed. Volatiles were sampled by headspace solid phase microextraction (HS-SPME) using a 65 µm polydimethylsiloxane divinylbenzene (PDMS/DVB) fiber. The chemical identification was performed by gas chromatography-mass spectrometry (GC-MS). A complex total ion chromatogram was obtained, with nearly seventy compounds identified and quantified. The aldehydes and terpenic derivatives were the most likely to relate honey to its floral origin, being phenylacetaldehyde and nonanal the most representative in lavender honey while hotrienol was the most abundant in the heather honeys. The above methodology was suitable for the isolation of low-molecular-weight aroma compounds, particularly for the short-chain aliphatic compounds that are important for authentication of lavender and heather honey.

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### **References:**

[1] E. de la Fuente, I. Martínez-Castro, J. Sanz. *J. Sep. Sci.* 2005, 28, 1093-1100.