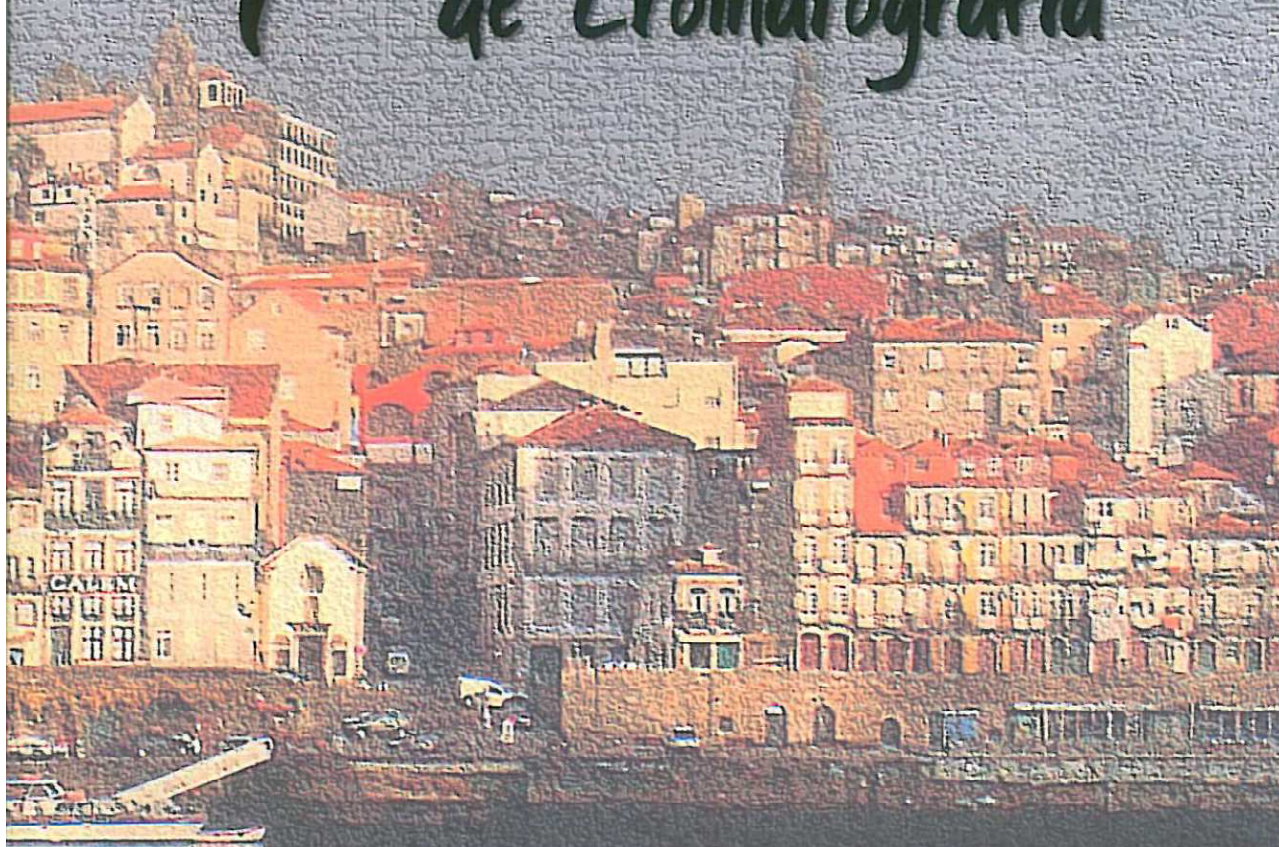


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P61. *Cytisus multiflorus*: phenolic characterization by HPLC-DAD, ESI-MSn and NMR combined methods

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Cytisus multiflorus is a well known Mediterranean plant presenting diuretic, anti-inflammatory, anti-hypertension and antidiabetic properties [1]. The high phenolic content of *C. multiflorus* is frequently associated to its health beneficial properties, however its phenolic composition remains unclear. In this work, the phenolic profile of an extract of *C. multiflorus* flowers was elucidated. After extraction with an aqueous ethanolic solution (80%), the enriched phenolic extract was analyzed by high performance liquid chromatography with diode array detection, electrospray mass spectrometry [2] and nuclear magnetic resonance techniques.

The extract of *C. multiflorus* was mainly composed with chrysin-7-*O*- β -D-glycopyranoside (MW 416) that accounted for 15.9 \pm 2.3 mg/g of dried plant. It also contained considerable amounts of rutin (4.5 \pm 0.7 mg/g), a dihydroxyflavone isomer of chrysin (7.0 \pm 1.3 mg/g), 2''-*O*-pentosyl-6-*C*-hexosyl-luteolin (3.3 \pm 0.5 mg/g), 2''-*O*-pentosyl-8-*C*-hexosyl-luteolin (3.5 \pm 0.3 mg/g) and 6''-*O*-(3-hydroxy-3-methylglutaryl)-2''-*O*-pentosyl-*C*-hexosyl-apigenin (3.6 \pm 0.7 mg/g), which are not commonly found in the Fabaceae family. Other unusual phenolic compounds found in minor amounts in the ethanolic extract of *C. multiflorus* flowers comprised the flavones 2''-*O*-pentosyl-6-*C*-hexosyl-apigenin, 2''-*O*-pentosyl-8-*C*-hexosyl-apigenin and 6''-*O*-(3-hydroxy-3-methylglutaryl)-2''-*O*-pentosyl-*C*-hexosyl-luteolin. The present work emerges as an important contribution for the phenolic characterization of *Cytisus* genus and of Fabaceae family.

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