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## ANÁLISIS CROMATOGRÁFICO Y RMN DE *LACHEMILLA ORBICULATA* EN DOS LOCALIDADES DE LOS ANDES ECUATORIANOS

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**Keywords:** *Lachemilla orbiculata*, estigmasterol, fenol, Fierro Urco, Papallacta  
*Lachemilla orbiculata*, *stigmasterol*, *phenol*, *Fierro Urco*, *Papallacta*

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### Abstract:

La familia *Rosaceae* se caracteriza por contener taninos, sorbitol, triterpenos y esteroides. *Lachemilla* es un género de *Rosaceae*, nativo y diverso de la región andina, utilizado con fines medicinales y ambientales en Colombia y Ecuador.

Se realizó la cuantificación total de fenoles en una muestra de Fierro Urco, *L. orbiculata* registrando 356,35 mg EAG/g y en una de Papallacta 368,8 mg EAG/g lo que evidencia la capacidad antioxidante de la especie.

Utilizando cromatografía de capa fina y de columna se aisló el compuesto terpénico más abundante en cada localidad: 25,9 mg en Fierro Urco y 6,9 mg en Papallacta, identificados por medio del análisis de Resonancia Magnética Nuclear:  $^1\text{H}$ ,  $^{13}\text{C}$  y DEPT, como estigmasterol, esteroles reportados por primera vez en el género *Lachemilla*.

### Abstract:

Traditional uses of plants for the treatment of diseases are attributed to the presence of secondary metabolites, such as the *Rosaceae* family characterized by containing tannin, sorbitol, triterpenes and steroids.

*Lachemilla*, a genus of the *Rosaceae*, native and diverse in the Andean region,

is used with medicinal and environmental purposes in Colombia and Ecuador. This study was done using leaves of *Lachemilla orbiculata* collected at two locations in the Ecuadorian Andes (Fierro Urco and Papallacta). A quantification of total phenols in the two localities revealed that in Fierro Urco *L. orbiculata* has 356.35 mg GAE/g and in Papallacta it has 368.8 mg GAE/g, which shows a considerable antioxidant capacity of the species. However, this result differs from a previous study made in Colombia by Argoti et al. (2011) in which they found approximately half of the quantity reported in this study. This difference could be explained by climate conditions, soil status, and other environmental factors. Furthermore, the most abundant terpene isolated in each locality, 25.9 mg in Fierro Urco and 6.9 mg in Papallacta, was identified through analysis of Nuclear Magnetic Resonance:  $^1\text{H}$ ,  $^{13}\text{C}$  and DEPT, as stigmasterol, a sterol reported for the first time in the genus *Lachemilla*.

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