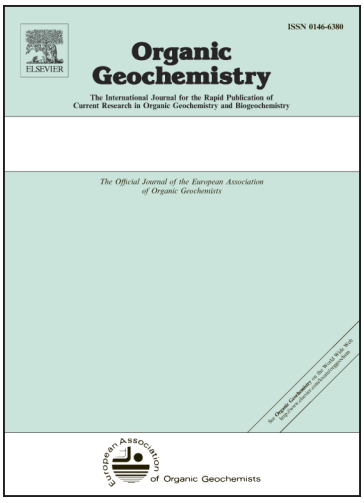
Accepted Manuscript



Wax lipids in fresh and charred anatomical parts of the *Celtis australis* tree: Insights on paleofire interpretation

Margarita Jambrina-Enríquez, Antonio V. Herrera-Herrera, Carolina Mallol

PII: S0146-6380(18)30126-8
DOI: https://doi.org/10.1016/j.orggeochem.2018.05.017
Reference: OG 3732

To appear in: *Organic Geochemistry*

Received Date: 28 January 2018
Revised Date: 18 May 2018
Accepted Date: 30 May 2018

Please cite this article as: Jambrina-Enríquez, M., Herrera-Herrera, A.V., Mallol, C., Wax lipids in fresh and charred anatomical parts of the *Celtis australis* tree: Insights on paleofire interpretation, *Organic Geochemistry* (2018), doi: https://doi.org/10.1016/j.orggeochem.2018.05.017

Wax lipids in fresh and charred anatomical parts of the *Celtis australis* tree: Insights on paleofire interpretation

Margarita Jambrina-Enríquez [a*], Antonio V. Herrera-Herrera [a], Carolina Mallol [a]

[a] *Archaeological Micromorphology and Biomarker Research Lab, Universidad de La Laguna, Instituto universitario de Bio-Orgánica Antonio González, Avda. Astrofísico Fco. Sánchez, 2, 38206 La Laguna, Tenerife, Spain.*

* Corresponding author. *e-mail address*: mjambrin@ull.edu.es (M. Jambrina-Enríquez)

ABSTRACT

Leaf waxes have been assumed to be the dominant source of wax delivered to sediment. However, wooden branches and twigs have not been widely considered in this context and could be a potential source of wax lipids in fire places or combustion structures. Black sedimentary layers are the main material of open-air archaeological combustion structures and represent either carbonized fuel (wood) or the charred ground beneath the fire (mainly leaves) and it is difficult to discern between the two sources. To identify different plant parts as components of combustion residues, fresh and charred leaves, branches and twigs (bark and xylem) of the *Celtis australis*