

Accepted Manuscript

Influence of vegetation type on *n*-alkane composition and hydrogen isotope values from a high latitude ombrotrophic bog

Nicholas L. Balascio, William J. D'Andrea, R. Scott Anderson, Stephen Wickler

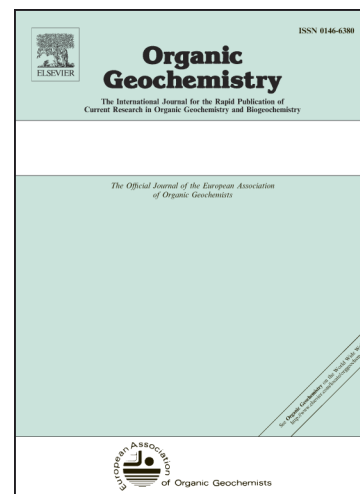
PII: S0146-6380(18)30059-7
DOI: <https://doi.org/10.1016/j.orggeochem.2018.03.008>
Reference: OG 3698

To appear in: *Organic Geochemistry*

Received Date: 29 September 2017
Revised Date: 28 February 2018
Accepted Date: 19 March 2018

Please cite this article as: Balascio, N.L., D'Andrea, W.J., Scott Anderson, R., Wickler, S., Influence of vegetation type on *n*-alkane composition and hydrogen isotope values from a high latitude ombrotrophic bog, *Organic Geochemistry* (2018), doi: <https://doi.org/10.1016/j.orggeochem.2018.03.008>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Influence of vegetation type on *n*-alkane composition and hydrogen isotope values from a high latitude ombrotrophic bog

Nicholas L. Balascio^{a*}, William J. D'Andrea^b, R. Scott Anderson^c, Stephen Wickler^d

^a *Department of Geology, College of William & Mary, Williamsburg, VA 23187, USA*

^b *Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY 10964, USA*

^c *School of Earth Science & Environmental Sustainability, Northern Arizona University, Flagstaff, AZ 86011, USA*

^d *Department of Cultural Sciences, Tromsø University Museum, Tromsø, Norway*

* Corresponding Author. *Email: nbalascio@wm.edu* (Nicholas Balascio).

Highlights

- Modern plant (14) *n*-alkanes from high latitude ombrotrophic bog analyzed.
- δD values of *n*-C₂₅ to *n*-C₃₃ ranged from -197‰ to -116‰ .
- Fractionation factors ranged from -66‰ to -134‰ .
- Species differences in *n*-alkane composition and δD values documented.
- Implications for interpreting sedimentary *n*-alkane records discussed.

ABSTRACT

The composition and hydrogen isotope values of leaf wax components can be powerful tools in reconstructing past climate and environments. However, interpretation of past environmental conditions from such components in sediments is complicated by species-specific influences and there is a need to better understand how vegetation type affects leaf wax composition and isotope

Download English Version:

<https://daneshyari.com/en/article/7816920>

Download Persian Version:

<https://daneshyari.com/article/7816920>

[Daneshyari.com](https://daneshyari.com)