

## Accepted Manuscript

Title: Influence of water molecule on the complexes of methyl naphthoate isomers with metal cations

Author: Rafał Frański Maciej Zalas

PII: S1387-3806(16)30049-5

DOI: <http://dx.doi.org/doi:10.1016/j.ijms.2016.05.008>

Reference: MASPEC 15605

To appear in: *International Journal of Mass Spectrometry*

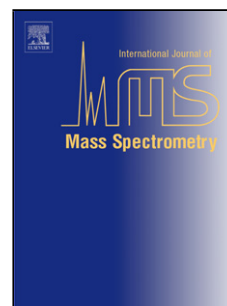
Received date: 11-3-2016

Revised date: 9-5-2016

Accepted date: 9-5-2016

Please cite this article as: Rafał Frański, Maciej Zalas, Influence of water molecule on the complexes of methyl naphthoate isomers with metal cations, *International Journal of Mass Spectrometry* <http://dx.doi.org/10.1016/j.ijms.2016.05.008>

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 water molecule on the complexes of methyl naphthoate isomers with metal cations

Rafał Frański\* and Maciej Zalas

Adam Mickiewicz University, Faculty of Chemistry, Umultowska 89B, 61-614 Poznań, Poland

\* - Author for correspondence, e-mail: [franski@amu.edu.pl](mailto:franski@amu.edu.pl)

**The complexes of methyl naphthoate isomers with metal cation were studied by using electrospray ionization mass spectrometry (ESI-MS). One of the isomers (namely methyl 2-naphthoate) was isotope labeled, therefore it was possible to perform ESI-MS analysis of solutions containing both isomers and metal cation(s) ( $\text{Li}^+$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Rb}^+$ ,  $\text{Cs}^+$ ,  $\text{Ca}^{2+}$ ,  $\text{Sr}^{2+}$ ,  $\text{Ba}^{2+}$ ,  $\text{Zn}^{2+}$ ). Depending on the metal cation, different complexes were observed (singly charged, doubly charged, counter ion containing ones). It was deduced that attachment of water molecule has essential influence of relative stabilities of the complexes of methyl naphthoate isomers with metal cations.**

*Keywords:* naphthoate, methyl ester, metal cation, ESI-MS, cation- $\pi$  interaction.

Download English Version:

<https://daneshyari.com/en/article/7603700>

Download Persian Version:

<https://daneshyari.com/article/7603700>

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