Accepted Manuscript

Title: A Novel Atmospheric Pressure Photoionization – Mass Spectrometry (APPI-MS) Method for the Detection of Polychlorinated Dibenzo P- Dioxins and Dibenzofuran Homologues in Real Environmental Samples Collected within the Vicinity of Industrial Incinerators



Authors: R. McCulloch, A. Alvaro, A.M. Astudillo, J.C. del Castillo, M. Gómez, J.M. Martín, M. Amo-González

PII: \$1387-3806(17)30046-5

DOI: http://dx.doi.org/doi:10.1016/j.ijms.2017.05.016

Reference: MASPEC 15807

To appear in: International Journal of Mass Spectrometry

Received date: 2-2-2017 Revised date: 23-5-2017 Accepted date: 24-5-2017

Please article cite this R.McCulloch, A.Alvaro, A.M. Astudillo, J.C.del Castillo. M.Gómez. J.M.Martín. M.Amo-González, Α Novel Pressure Photoionization Mass Atmospheric Spectrometry (APPI-MS) Method for the Detection of Polychlorinated Dibenzo P- Dioxins and Dibenzofuran Homologues in Real Environmental Samples Collected within the Vicinity of Industrial Incinerators, International Journal of Mass Spectrometryhttp://dx.doi.org/10.1016/j.ijms.2017.05.016

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.

ACCEPTED MANUSCRIPT

A Novel Atmospheric Pressure Photoionization Mass Spectrometry (APPI-MS) Method for the
Detection of Polychlorinated Dibenzo P- Dioxins and
Dibenzofuran Homologues in Real Environmental
Samples Collected within the Vicinity of Industrial
Incinerators.

McCulloch, R.¹, Alvaro, A.¹, Astudillo, A.M.¹., del Castillo, J.C.¹, Gómez, M.², Martín, J.M.², Amo-González, M.*¹

¹SEADM, C/ José Lázaro Galdiano, Madrid, Spain; ²CARTIF Technology Center, Parque Tecnológico de Boecillo, 205, Boecillo (Valladolid), Spain;

Highlights

The new technology described (field-free APPI-MS) has been shown to be suitable for the detection of trace environmental toxins.

This novel technology offers improved sensitivity, high throughput and reduced sample preparation requirements. APPI is the most effective atmospheric pressure ion source for the analysis of highly non-polar compounds, utilizing the charge exchange mechanism. This is particularly effective for compounds like PAHs, etc.

Download English Version:

https://daneshyari.com/en/article/7603490

Download Persian Version:

https://daneshyari.com/article/7603490

<u>Daneshyari.com</u>