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Certificate of attendance

Dr. Rosalía López-Ruiz

(University of Almería)

has attended the 'International Conference on Non-Target Screening' from October 4th to 7th 2021 online and presented a poster entitled "**AIF, dd-MS2 or DIA, which acquisition mode is the best for untargeted screening?**".

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25. AIF, dd-MS² or DIA, which acquisition mode is the best for untargeted screening?

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High-resolution mass spectrometry is increasingly used for untargeted analysis. However, in the last years and because of the technical advances developed in the instrumentation used for that purpose, new modes of acquisition have appeared, and the selection of the best one for un-target analysis is not a straightforward decision. A comparison between all ion fragmentation (AIF), data dependent analysis (dd-MS²) and data independent analysis (DIA) was performed to analyze pesticide residues in foods. For that, the number of compounds detected by each acquisition mode and number of scans generated for the corresponding precursor ions were compared. Cucumber sample was selected as matrix and the results revealed that DIA analysis mode was the best, and 21 compounds were identified, whereas AIF identified 19 and dd-MS² only identified 16 pesticide residues. As it can be observed in Figure 1 the use of DIA provides enough scans per chromatographic peak.

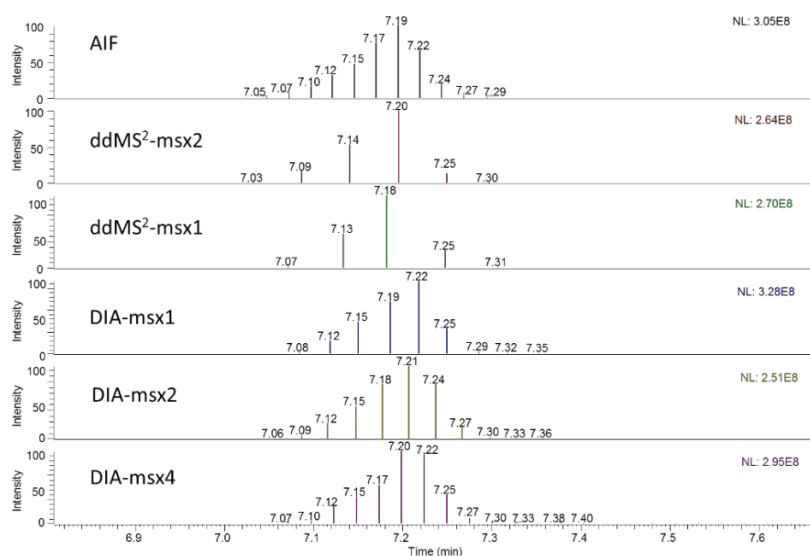


Figure 1. Extracted ion chromatogram of pesticide pirimicarb (m/z 239.5025) using different acquisition modes. Number of scans are represented by sticks.

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