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Certificate of attendance

Prof. Dr. Roberto Romero-González

(University of Almería)

has attended the 'International Conference on Non-Target Screening' from October 4th to 7th 2021 online and presented an oral contribution, entitled "**Non-target screening approach for plant protection product characterization: Use of chromatographic techniques-high resolution mass spectrometry**".

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Non-target screening approach for plant protection product characterization: Use of chromatographic techniques-high resolution mass spectrometry

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Plant protection products (PPPs) contain an active substance, with pesticidal function, as well as emulsifiers, anti-foaming agents, etc., named as co-formulants or adjuvants. Although the information of the active substance is regulated and most of the studies are mainly focused on the presence of the pesticide, these co-formulants are not commonly included in the PPP's label and there are scarce studies focused on the presence of these co-formulants in PPPs, that can also be toxic, as the active compound. To achieve a complete characterization of PPPs, a non-target approach (see Figure 1) was applied using chromatographic techniques (gas and liquid chromatography) coupled to high resolution mass spectrometry analyser (Quadrupole-Orbitrap). Thus, more than 10 PPPs (including emulsifiable concentrates, concentrated suspensions, etc) containing either chlorantraniliprole or difenoconazole were characterized and more than 40 co-formulants were tentatively identified, but less than 15 were confirmed after standards were injected, such as pentamethylbenzene or naphthalene.

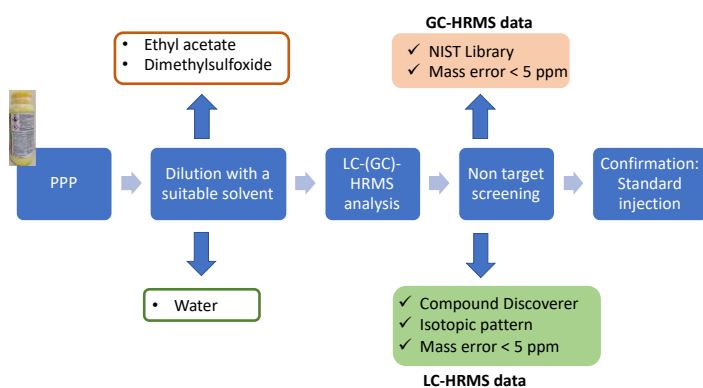


Figure 1.- Workflow used in non-target screening of co-formulants in PPPs

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