



Towards a foodomics approach for food chemical safety assessment

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► To cite this version:

Grégoire Delaporte, Mathieu Cladière, Delphine Jouan-Rimbaud Bouveresse, Valérie Camel. Towards a foodomics approach for food chemical safety assessment. SMMAP 2017 (Spectrométrie de Masse, Métabolomique et Analyse Protéomique), Oct 2017, Marne-la-Vallée, France. , 2017. hal-01765434

HAL Id: hal-01765434

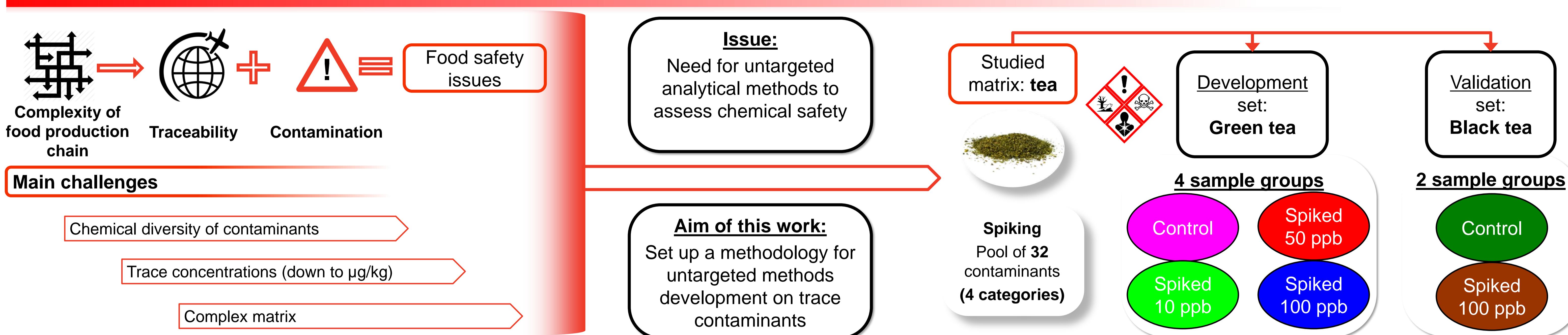
<https://hal.science/hal-01765434>

Submitted on 10 May 2022

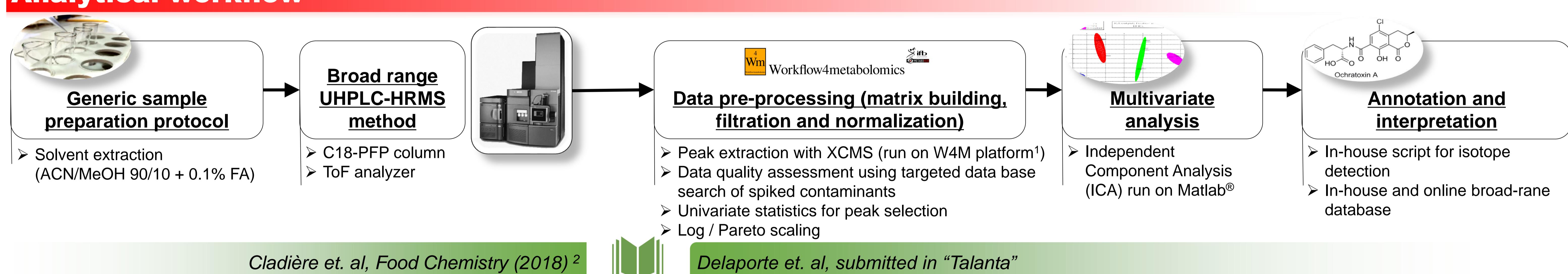
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Context



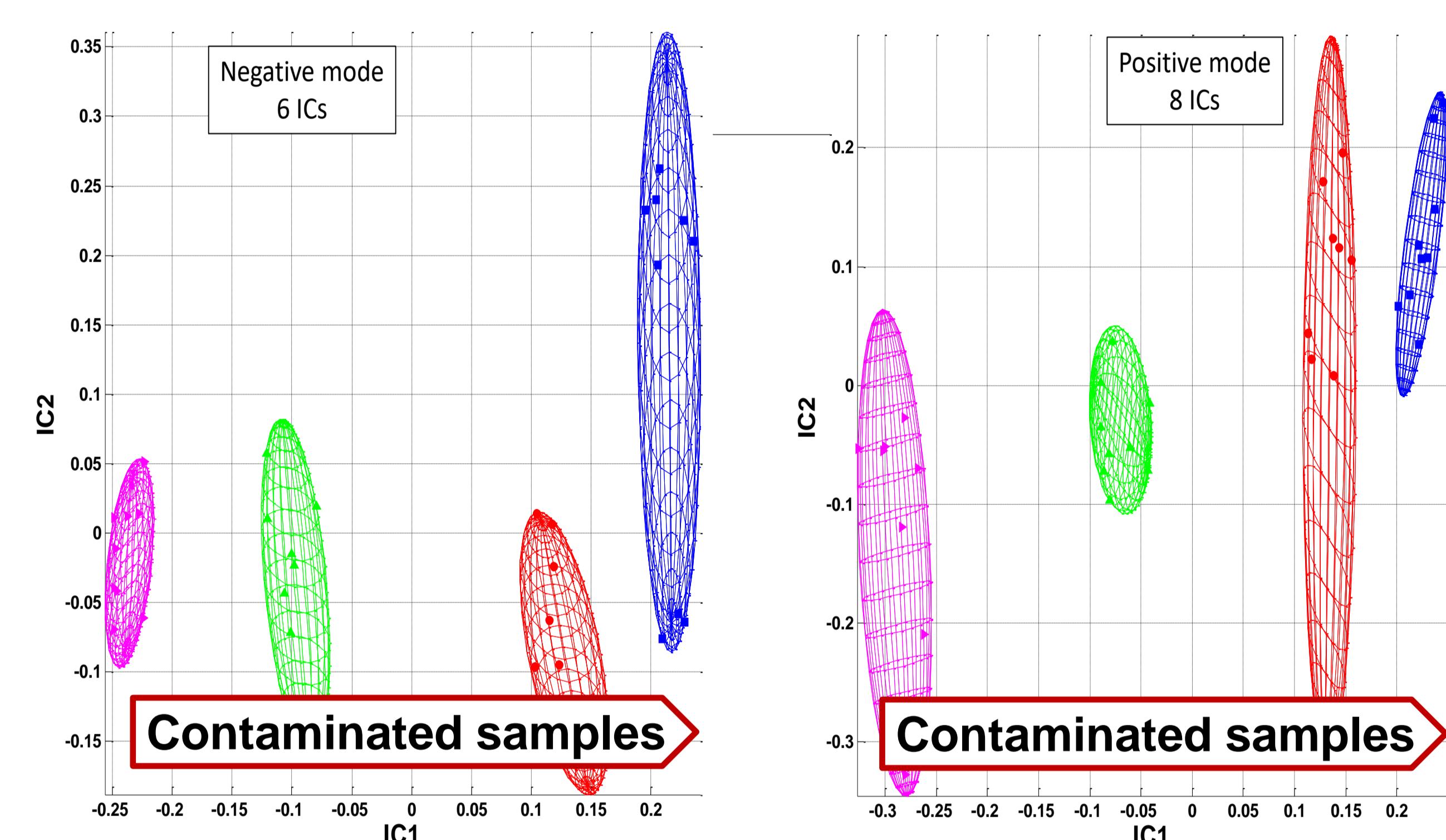
Analytical workflow

Cladière et. al, Food Chemistry (2018)²

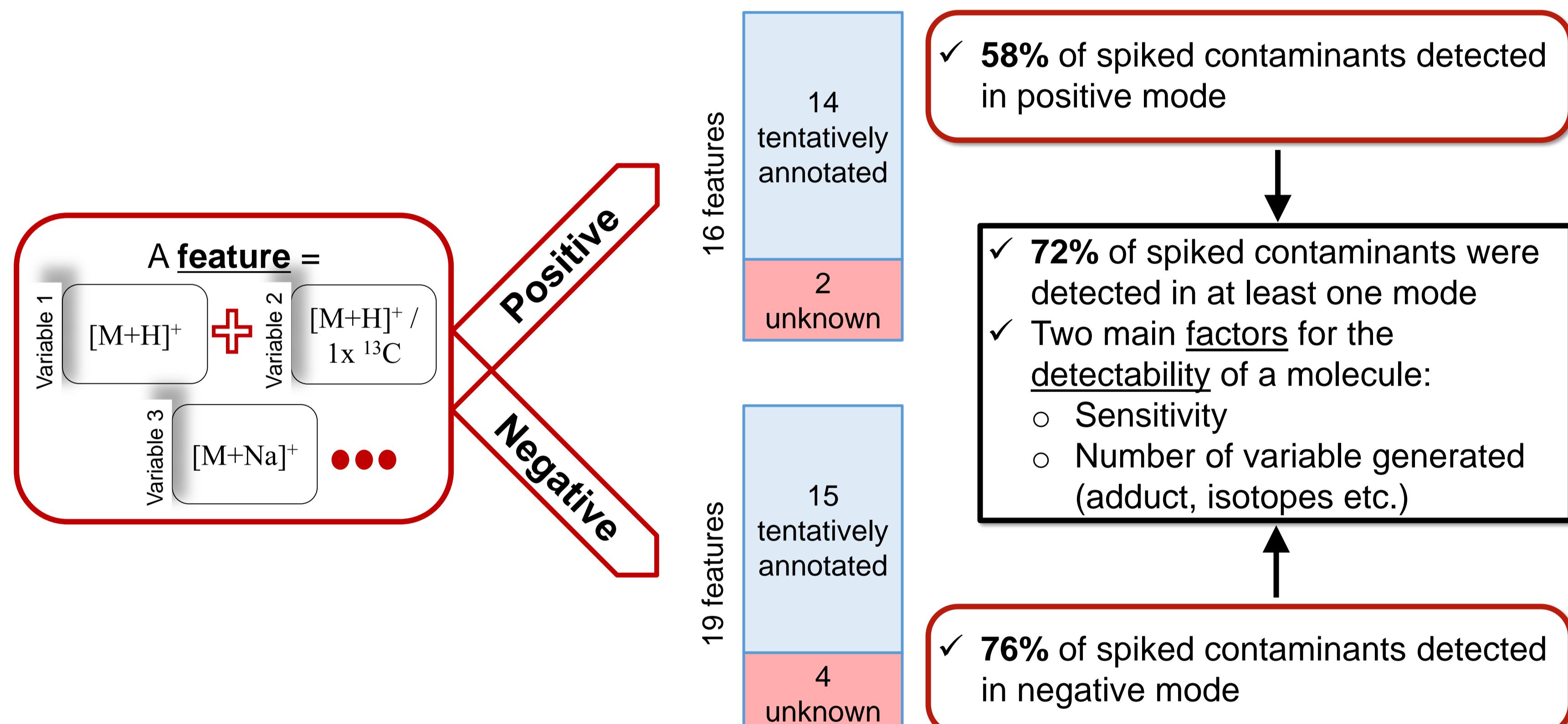
Delaporte et. al, submitted in "Talanta"

Results

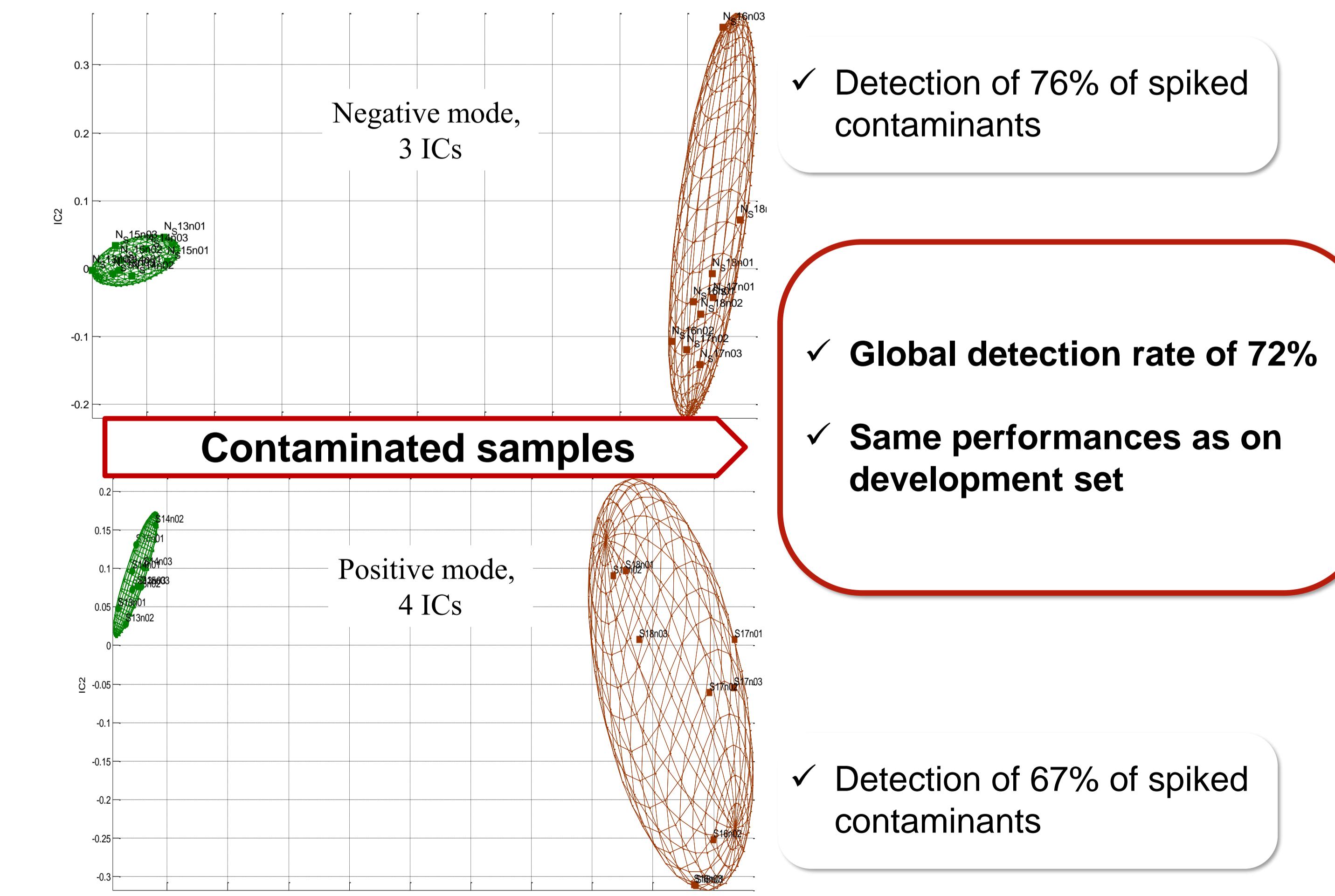
Discrimination of sample groups in the test set



Annotation of discriminating variables in the development set



Analysis of the validation set



Discussion / Perspectives



- ✓ Big methodological step towards untargeted food safety assessment
- ✓ Blind detection of food contamination as low as 10 $\mu\text{g/kg}$ in a complex matrix
- ✓ Methodology validated on another type of tea
- ✓ Data mining tools successfully make annotation of discriminating compounds easier

- Assess the capacity of the methodology to discriminate single contamination
- Performance assessment on several batches of tea samples