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Recent chemometrics advances for Foodomics

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19 Abstract

20 Foodomics is a newly developed discipline that has become more and more important in the last years 21 where focus on food and the understanding of food systems has increased significantly. In this review, the flow of a typical foodomics study will be followed with a focus on the core components, where 22 23 chemometric expertise is more deeply involved. These are: how to acquire sound data, how to exploit an 24 experimental design, how to use classification in a proper way, how to look at more analytical platforms at 25 the same time and, not the least, how to understand the limitations when interpreting the developed models. For each of these phases, the most common data issues will be highlighted and some of the most 26 27 recent chemometric methods that are able to help solving them, will be presented.

28 Keywords

Foodomics; Data structure; Chemometrics; Peak Deconvolution; Designed Experiments Data; Classification;
 Data-Fusion; Cage of Covariance

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