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How to Visualize a Potential Aromatic Map of a Product in the Odor Space: The Sketchoscent Approach

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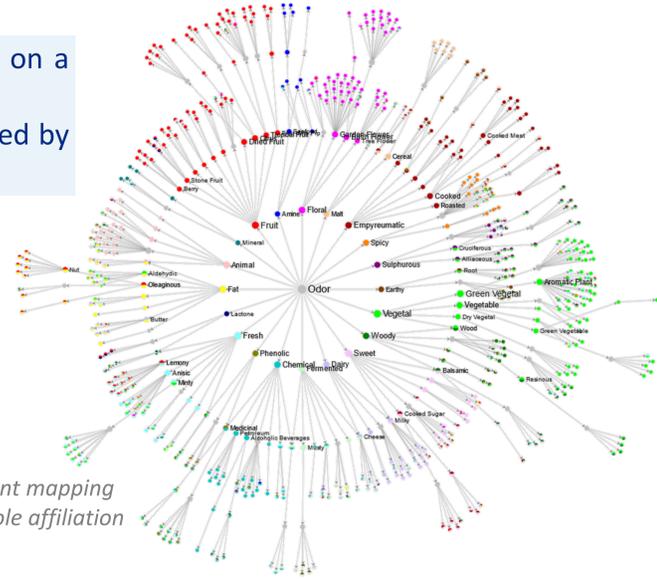
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How to visualize a potential aromatic map of a product in the odor space: the SketchOscent approach

The SketchOscent approach is an easy-to-use and open-access tool that we recently proposed, founded on a cartographic metaphor of the odor space. Contrary to common representations, it reflects the actual continuum and overlapping of odors engendered by molecules, their possible description by different levels of accuracy or their belonging to several categories.

The olfactive perception of a product results from the expression of a set of volatile odorant molecules it contains. The SketchOscent mapping is based on databases that include more than 7700 molecules contained in 8800 products, 380 hierarchical odorant descriptors and takes into account both sensory and conceptual perceptions.

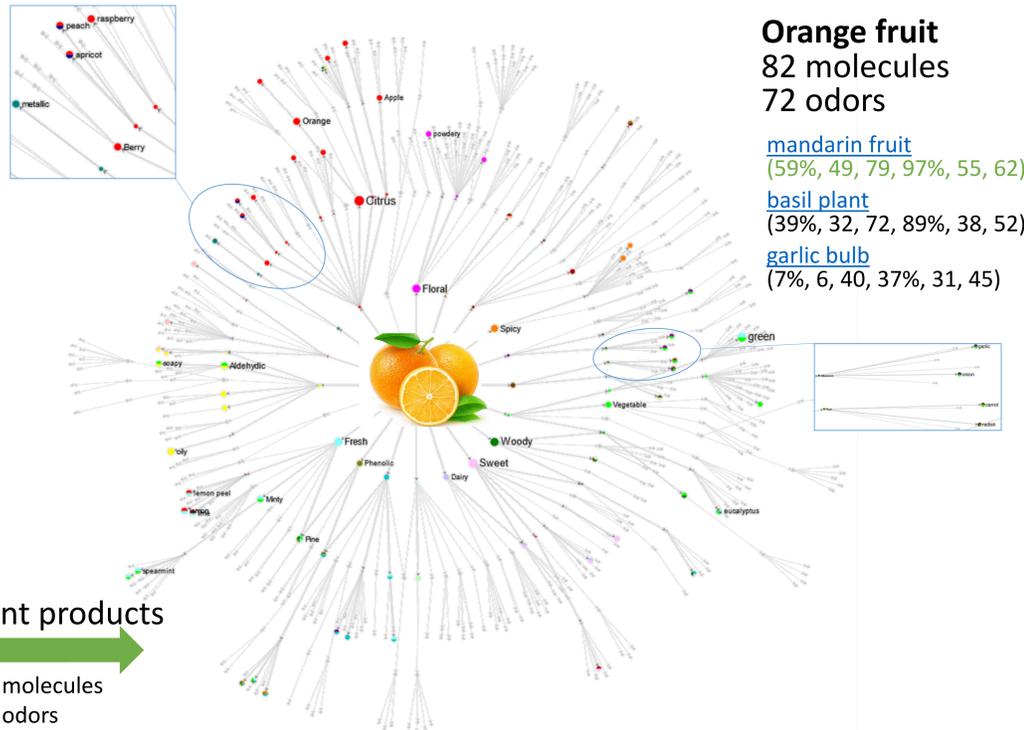
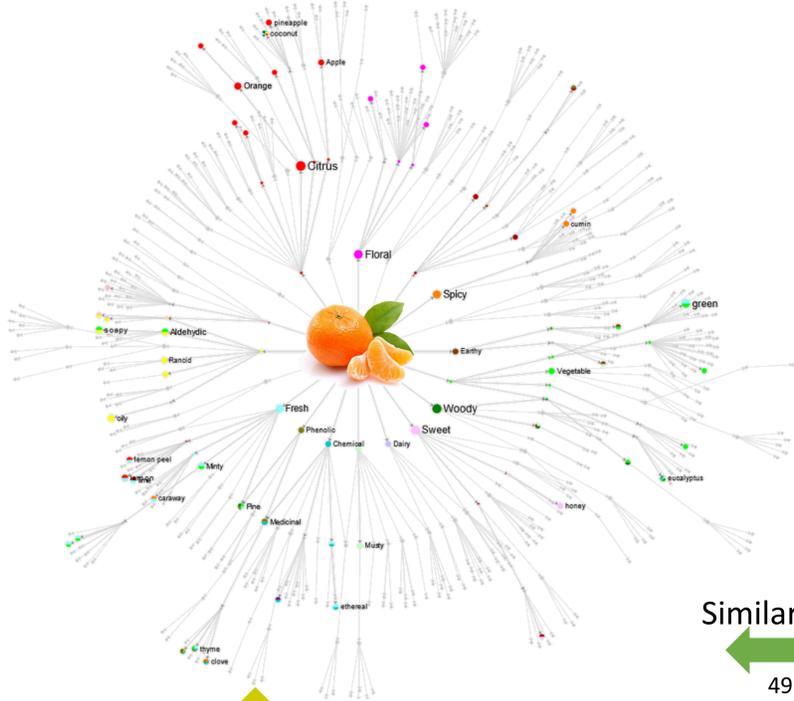


Mandarin fruit
 79 molecules
 62 odors

orange fruit (62%, 49, 82, 97%, 55, 72)
 (% of common molecules between Mandarin and Orange fruit, number of common molecules, total molecules referenced in database for orange fruit, % of common odors, number of common odors, total odors referenced in database for orange fruit)

basil plant (43%, 34, 72, 93%, 41, 52)

garlic bulb (7%, 6, 40, 33%, 22, 45)

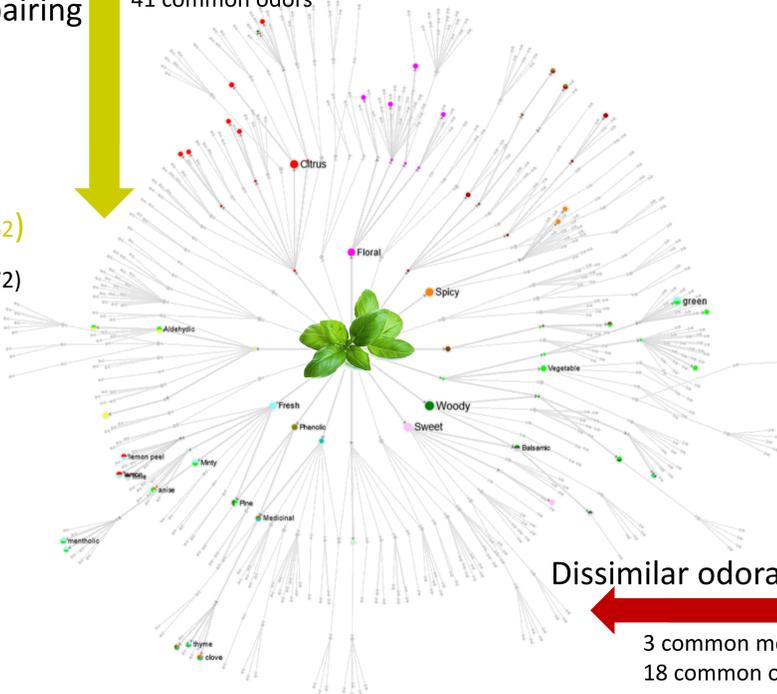


Possible food pairing
 34 common molecules
 41 common odors

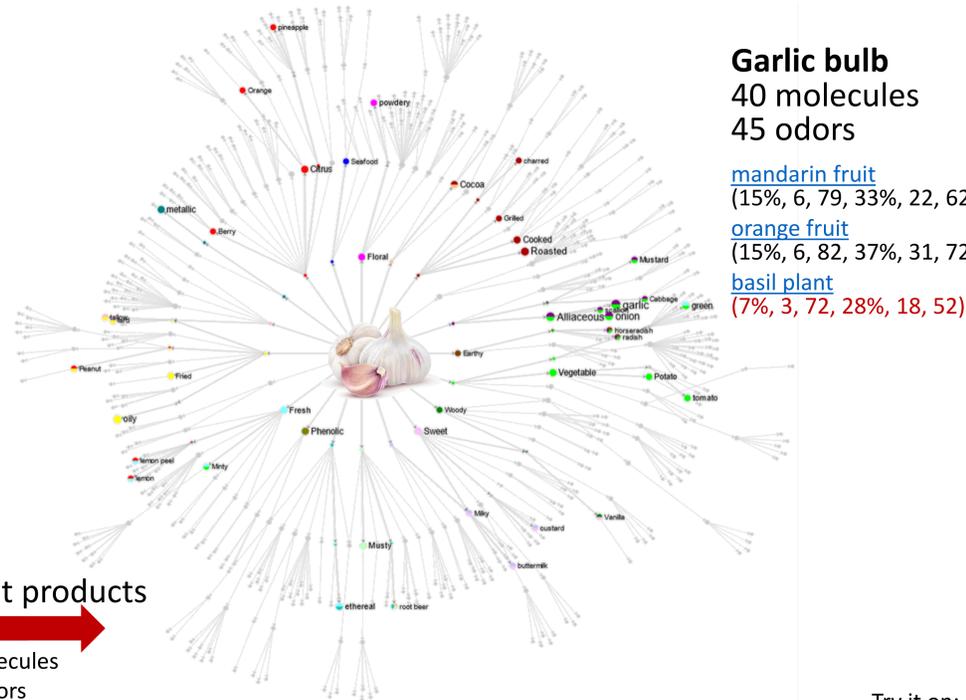
Similar odorant products
 49 common molecules
 55 common odors

Basil plant
 72 molecules
 52 odors

mandarin fruit (47%, 34, 79, 93%, 41, 62)
orange fruit (44%, 32, 82, 89%, 38, 72)
garlic bulb (4%, 3, 40, 28%, 18, 45)



Dissimilar odorant products
 3 common molecules
 18 common odors



- The SketchOscent mapping enables to highlight a possible aromatic palette of a product by providing a set of locations in the map, embedding its potential odorants.
- Following cartographic principles, the map of all locations remains stable in order to keep the user's mental representation and facilitate the comparison between products.
- This approach, can be useful to pick up relevant terms to describe perceptions or for food-pairing type applications, but may be amended to larger sectors of activities.

Try it on:
<https://oniris-polytech.univ-nantes.io/sketchoscent>
 or flash it here :



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