# Perfume memorability: The role of emotions and familiarity

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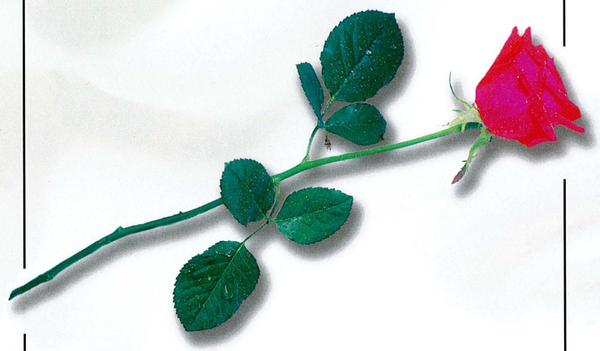

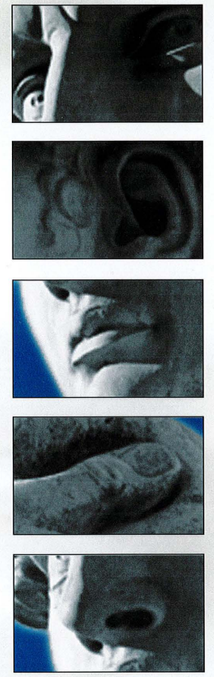

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**[P1.2.14]**

## Structure-odour-activity relationship of volatile alkylated phenols

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Many volatile phenolic compounds are known as constituents of various foods [1]. Investigations on the contribution of volatiles to food aroma have shown that two groups of phenols were identified consistently as impact compounds on food aroma: (i) methoxyphenols (e.g. guaiacol and vanillin) with predominantly sweet and smoky notes and (ii) alkylphenols (e.g. methyl- and ethylphenols) with phenolic and leather-like attributes [2]. Depending on the food, specific compositions of only a few of the mentioned phenols were identified as odour-active compounds [3,4]. Although the compounds were found in trace amounts, their impact originated from their high odour activities and low odour thresholds, respectively [2]. The results indicate that the odour potency of other phenols is low, but information about their odour thresholds in literature is rare. To gain more insight into this aspect, this study aimed at a structure-odour-activity relationship of volatile alkylphenols.

The orthonasal odour thresholds in air were evaluated by GC/olfactometry [5] for more than 30 compounds. The results demonstrate that the position of alkyl substituents at the phenol ring as well as the number of carbon atoms of the substituents significantly influence the odour activities as well as the odour qualities of the investigated phenols.

[1] VCF Volatile Compounds in Food 10.1.1, TNO, The Netherlands, www.vcf-online.nl.
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[5] Ullrich F, Grosch W (1987) Z. Lebensm. Unters. Forsch. 184, 277-282.

Keywords: Structure-Odour-Activity Relationship, Alkylphenols, Odour Threshold, Odour Quality

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**[P1.2.15]**

## Perfume memorability: The role of emotions and familiarity

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Emotions are involved in memory both at the encoding and retrieval stages. Odors are also related to emotions as illustrated by the Proustian phenomenon. Thus, we may hypothesize that odors eliciting potent emotions would be better memorized than other odors. The objective of the present work is to explore this potential relationship with a specific odor space: woman fine fragrances.

Twenty four perfumes were used in the experiment, some were classics and others newly launched on the market. Forty-eight women performed three tasks: i) a memory task with incidental learning of half of the perfumes and an explicit "yes / no" recognition task after a one week retention time, ii) an emotion judgment task including an evaluation of liking and arousal on 9-points scales and a selection of terms in a list of 22 terms obtained from three lists previously used for odors, and iii) a familiarity rating task and an identification for familiar perfumes.

Emotion judgments from terms selection on one hand, and liking and arousal ratings on the other hand were in close agreement. Emotion judgments lead to identify three groups of perfumes: one group eliciting "Sensuality", one group eliciting "Relaxation" and the third group eliciting "Annoyance / Disgust / Dissatisfaction". As expected, recognition performance and especially Hit rates were correlated to identification performance, indicating that a richer information at encoding lead to better recognition performance. By contrast, no link was evidenced between memorization performance and emotions: perfumes eliciting more potent emotions were not better memorized except for three perfumes that were disliked. Familiarity was correlated to Hit, FA and decision criteria, indicating a trend to recognize familiar perfumes in the memory test, independently of their actual presentation at the learning stage.

Keywords: Odor Memory, Familiarity, Emotion, Perfume

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**[P1.2.16]**

## Understanding the French anti-ageing creams market by three different methods using sensory panelists: Conventional profile vs flash profile vs free sorting

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The anti-ageing creams market is highly competitive and to stay in competition, key players need to launch innovative and efficient products. Behind a similar end user anti-ageing promise, one can find very different products in terms of sensory properties. Under the objective of getting a better knowledge of this sensory variety, a comparison of three