SUPPLEMENTARY DATA
Courregelongue, M., & Pons, A. (2024). The aroma of toasted oak wood (*Quercus petraea*): from sensory analysis to molecular characterisation. *OENO One*, *58*(4).
https://doi.org/10.20870/oeno-one.2024.58.4.7883

SUPPLEMENTARY DATA



Figure S1. Picture of oak wood chips toasted at different temperature-time couples presented to the panellist to define the sensory space of toasted oak wood (left to right): non-toasted (NT), light toasting (LT, 160 °C - 30 min), medium toasting (MT, 180 °C - 30 min) and high toasting (HT, 240 °C - 30 min).

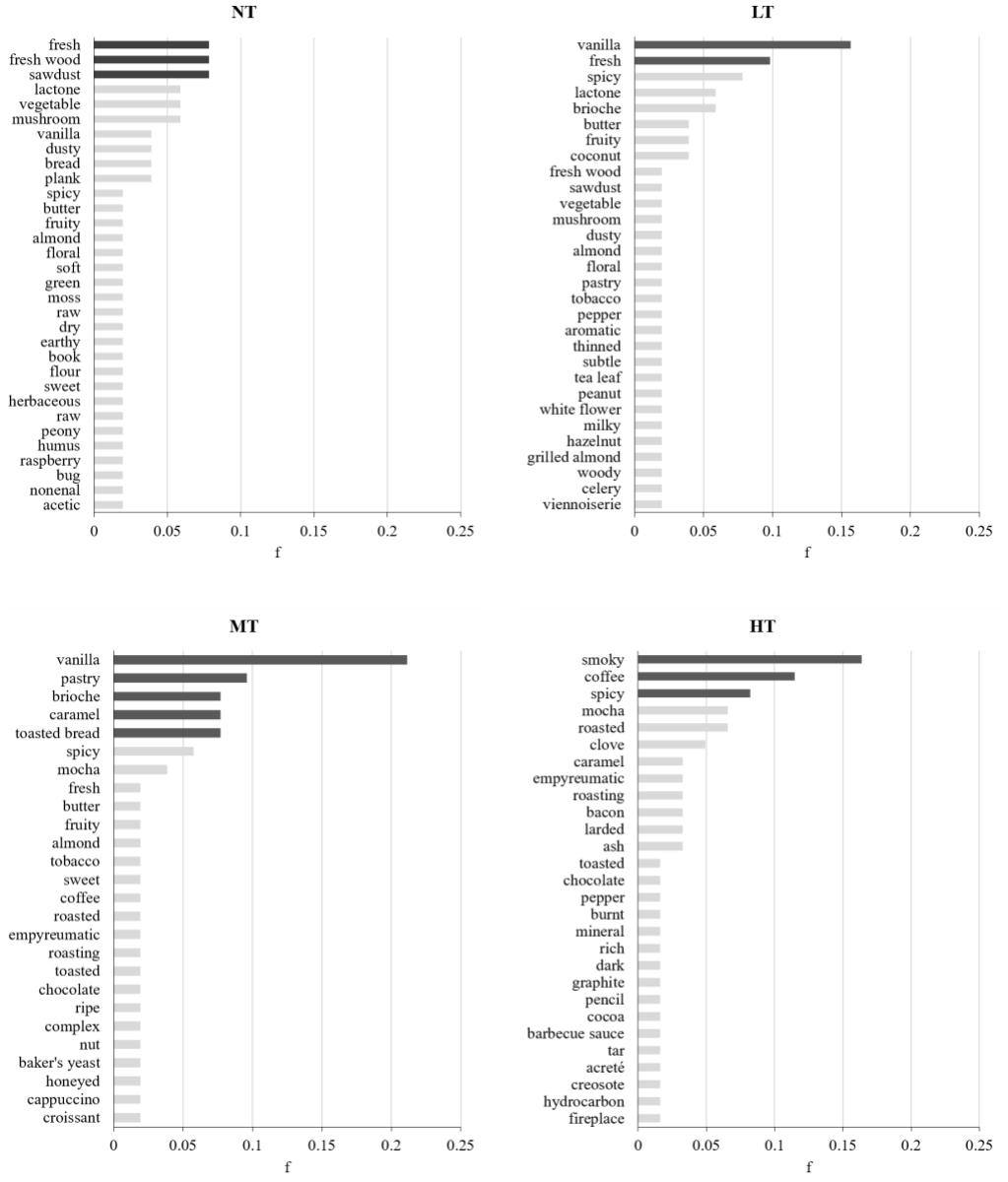


Figure S2. Citation frequencies (Cf > 0.015) of descriptors according to toasting intensity: NT, non-toasted; LT, light toasting; MT, medium toasting and HT, high toasting. (n = 13)

SUPPLEMENTARY DATA
Courregelongue, M., & Pons, A. (2024). The aroma of toasted oak wood (*Quercus petraea*): from sensory analysis to molecular characterisation. *OENO One*, *58*(4).
https://doi.org/10.20870/oeno-one.2024.58.4.7883

Table S1. Analytical parameters of the thymoquinone and verbenone quantification method by SPME GC-TOF-MS.

Compounds	Linearity range Range	R^2	Linearity	LOQ[1]	LOD[1]	Repeatability (%)[2]
Thymoquinone	LOQ – 1 µg/L	0.9973	548.5 x	11.9	39.7	10
Verbenone	LOQ – 1 µg/L	0.9904	749.3 x	4.7	15.7	12

[1] ng/L. [2] Calculated at 200 ng/L with four replicates.

Table S2. Classification of eighty-three descriptors generated by expert panel in seven sensory families by applying a consensus approach. (n = 13).

Classes of sensory families						
Fresh wood	**Fresh green**	**Dry green**	**Sweet**	**Roasted**	**Spicy**	**Smoky**
fresh wood	green	tealeaf	coconut	coffee	spicy	smoky
board	stink bug		vanilla	chocolate	cloves	burnt
sawdust	herbaceous		caramel	mocha	pepper	tobacco
dusty	fresh		bread	cappuccino		fireplace
mushroom			pastry	roasted almond		ash
			butter	roasted		tar
			brioche	toasted		hydrocarbon
			croissant			lard
			sweet			bacon
			nut			barbecue sauce
			almond			pencil
						graphite

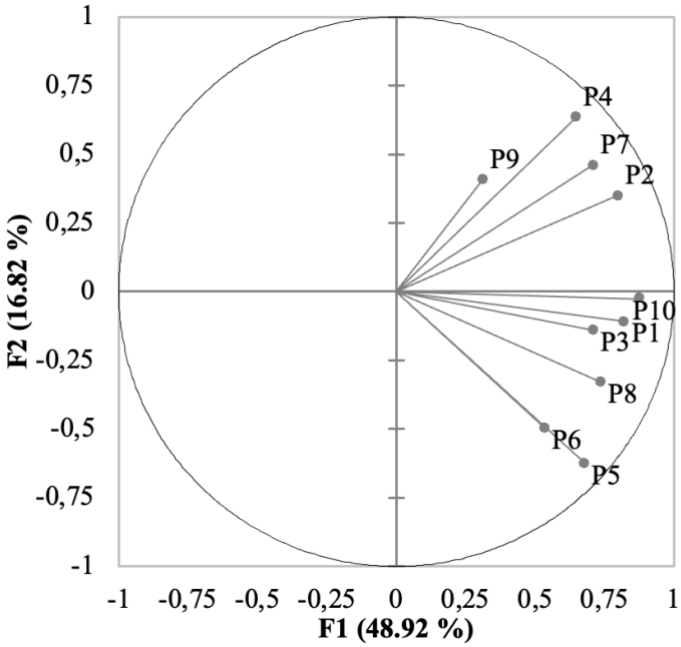


Figure S3. Results of conventional profiling expressed as principal component analysis (PCA). (n = 10; P = panelist).

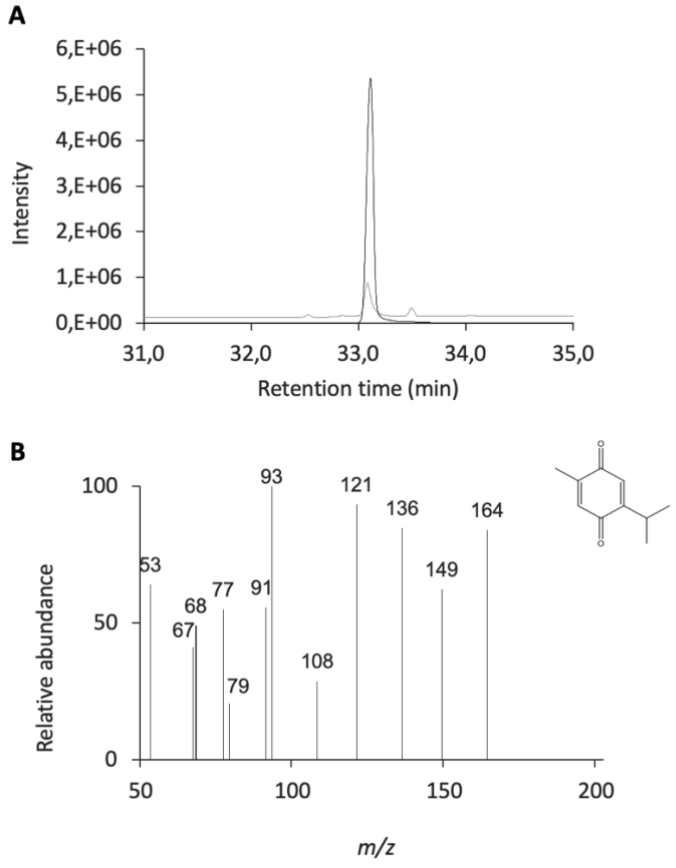


Figure S4. A: GC-TOF-MS analysis of an oak wood organic extract co-injected (black) or not (grey) with a stock solution of thymoquinone (1 mg/L) (EI, *m/z* 164). B: Mass fragmentation spectrum (EI) of thymoquinone (*m/z* 50-200).

Courregelongue, M., & Pons, A. (2024). The aroma of toasted oak wood (*Quercus petraea*): from sensory analysis to molecular characterisation. *OENO One*, *58*(4).
https://doi.org/10.20870/oeno-one.2024.58.4.7883

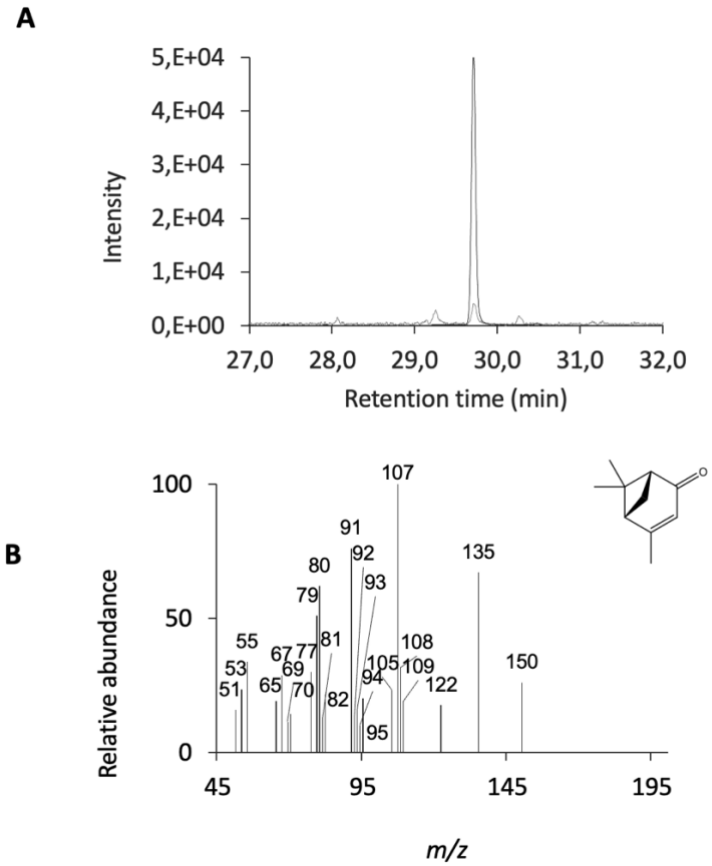


Figure S5. A: GC-MS NCI (NH_3) analysis of an oak wood organic extract co-injected (black) or not (grey) with a stock solution of verbenone (1 mg/L) (SIM mode, *m/z* 149). B: Mass fragmentation spectrum of verbenone obtained by GC-TOF-MS (*m/z* 50-200).