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## Headspace Gas Analysis of Volatile Compounds of Light and Deep Roasted Sesame Seed Oil

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Volatile compounds in the headspace gas of light and deep roasted sesame seed oil were analyzed by gas chromatography and gas chromatography-mass spectrometry. The GC-MS method resulted in good reproducibility (<6.6% as a relative standard deviation) in the determination of individual volatile components. About 64 compounds were identified.

heterocyclic compounds, 7 aliphatic aldehydes, 11 ketones, and 16 compounds, were identified. Peak area percentages of 2-methylpropanal and 3-methylbutanal, 2-propanone, 2-butanone, 3-methyl-2-butanone, 2- and 3-methylfuran, and 2,5-dimethylfuran, all of which could not be identified by distillation and column adsorptive concentration (previous method) of the roasted oil. Hexanal decreased from 6.13% to 2.55% in deep roasting compared to the previous method, pyridine, thiophenes, and sulfides could be detected by the present method, but unsaturated aliphatic aldehydes could not.

**Keywords:** [sesame seed oil](#), [aroma compounds](#), [volatiles](#), [headspace](#)

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