

Analysis of SPME or SBSE extracted volatile compounds from cooked cured pork ham differing in intramuscular fat profiles

LWT - Food Science and Technology (2015) 60, 393-399

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Abstract

We studied the influence of the IMF content (high - HI vs. low - LI) and the fatty acid saturation profile on cooked cured pork ham volatiles. LI hams had higher PUFA and lower MUFA contents than HI hams. Using SPME we identified 29 compounds novel to cooked cured pork ham profiles, mostly lipid derivatives. Group differences were related to the PUFA/MUFA contents but not to the IMF content. Differences were also identified in amino acid breakdown derivatives with potential aroma implications. The SBSE method, a novelty in pork meat science, revealed differences which included board taint-related volatiles, terpenes and 36 novel compounds; 14 of these compounds were only found by the SBSE method.