



## Bachelor's thesis - Project work - Master's thesis - student assistant

## Instrumental and sensory analysis of the aroma profiles of fermented cheese alternatives made from recombinant milk protein and vegetable fats

This research project investigates aroma formation during the ripening of vegan cheese alternatives based on recombinant milk proteins and vegetable fats. The aim is to develop products that are comparable to conventional cheese in terms of taste and functionality, but without any animal-derived ingredients.

This project focusses on the instrumental analysis of aroma components and sensory evaluation. Therefore, cheese samples from different ripening stages and with different compositions are analyzed using gas chromatography-mass spectrometry-olfactometry (GC-MS/O) and HPLC. Suitable methods for the extraction and quantification of volatile and non-volatile aroma components are being developed for this purpose. The aroma profiles are evaluated and supplemented by sensory tests with a trained panel. The data obtained is entered into an aroma database and used to further develop product quality in a targeted manner.

As part of a bachelor's, master's, or project thesis, students have the opportunity to focus on instrumental analysis, sensory training, or data-based evaluation of aroma profiles and database development, depending on their interests.



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