

# TasteTech

## Developing innovative flavour technology

### Challenge

Trends in food have changed drastically in Britain over the past decade and continue to change at an ever increasing pace. The food flavouring industry has to find ways of keeping up with those changes. In adding flavourings to foods the form of the material, liquid or solid, the stability and age, how it disperses and how the flavour is released in the final product all have to be considered. Many of these ingredients are expensive and their flavour degrades with time, so protecting them until they are required, at the point of consumption is key.

### Solution

Taste Tech have developed novel methods for encapsulating food flavourings. Matrix encapsulation allows the flavouring to be trapped inside another material increasing the longevity of the flavouring and allowing the active ingredient to be released when heat is applied during the food preparation stage. Core Shell encapsulation not only provides the benefits of Matrix encapsulation but allows active ingredients to be separated so that they do not react until needed. Both Matrix and Core Shell encapsulation protect the flavouring against degradation from moisture. In preparing flavourings trapped in a matrix knowing that the flavouring is dispersed and fully encapsulated is key quality control of the process. Knowing that the flavouring is protected in the process is important.

### HTH Contribution

The HTH helped to investigate the distribution of sweetener within a wax matrix. Techniques used included optical microscopy and imaging Raman confocal microscopy. The HTH was able to show how the sweetener particles were distributed within the wax particles. The distribution of sweetener in wax was shown to be uniform, and each particle fully encapsulated exactly what Taste Tech were aiming to produce.

*“The Heath Tech Hub researchers & technicians have all been engaging, enthusiastic and keen to explain what their kit does and find ways in which it can be applied to get meaningful useful results. Engaging with the HTH is also another avenue to discuss ideas, potential markets and to get another perspective. Working with the team broadens our horizons on what other materials, nutrients or actives could make new beneficial products utilising this encapsulation technique.”*

Gary Gray

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