

# Tailoring Taste & Texture

*For a healthy diet, consumers and legislation demand products which are low in calories and low in sodium. NIZO food research offers product specific solutions that allow reduction of sugar and/or salt levels in your products without compromising on taste, texture and mouthfeel.*

*Team up with NIZO and improve or develop new products with great taste!*



## Your next level in...

### Tailored taste release and enhanced taste intensity

First impressions are key. Make sure that your product makes a lasting one. Enhancing aroma or masking off-flavours is the key to gain satisfied and loyal consumers and NIZO provides the technologies and expertise to achieve this with you.



### Pleasing the consumer

Children, elderly people, patients, they all have their own preferences regarding taste and texture. With NIZO you have access to state-of-the-art flavour and tex-

ture tools in combination with sensory studies (expert panel, consumers) to tailor your products to these highly divergent needs.

### Low sugar products

Sugar is sweetness is pleasantness is joy... However, high sugar consumption is also associated with weight gain, caries and diabetes. A reduction in sugar levels is therefore desired but also results in a reduction in taste, pleasantness, and mouth feel properties. Find ways to compensate for this in your product together with NIZO.



### Low salt products

High salt intake is linked to health issues and the WHO recommends a substantial reduction. But, salt is not only an important flavour carrier, it is also essential for texture and mouth feel, structuring and processing.

### Why NIZO?

- 10+ years of flavour research
- international team of experts with industry background
- 60+ years of dairy experience
- state-of-the-art flavour tools
- from lab to a wide range of product applications

*"The consumer's choice is great taste and healthy food – we design it with you!"*

says Dr. Kerstin Burseg, flavour expert at NIZO food research





## What we offer

### Sugar reduction strategies

- Screening for natural sweet taste compounds / enhancers
- Blending natural high intensity sweeteners for optimum taste
- Masking off-taste and lingering of high intensity sweeteners
- Stable inhomogeneous sugar layers in solid food products
- Screening for sweetness enhancing odorants

### Salt reduction strategies

- Stable inhomogeneous salt layers in solid food products
- Screening for saltiness enhancing odorants
- Salt taste enhancement by fluctuation in time
- Enhanced serum release to optimize salt release

### Extensive flavour and texture characterisation options

#### Taste optimization:

HPLC: taste isolation, identification, enrichment

Custometer: dynamic taste delivery, taste-taste interactions

#### Aroma optimization:

PTR MS: *in-vivo* aroma release

Olfactometer: aroma-aroma & taste-aroma interactions

Olfactoscan®: screening for off-flavor masking

#### Texture optimization:

Texture analyser: structure breakdown characterization

CSLM: ingredient distribution

- SOIR® & STAR® procedures to profile flavour compounds in your product
- Sensory studies (ISO-certified expert panels, consumers)

### From composition to sensation

- Combined approach from taste composition to *in vivo* release and sensation
- Cross-modal based product development (olfactometer-gustometer coupling)
- *In vitro* and in-mouth structure break-down optimization for improved tastant exposure

- Dynamic, *in vivo* taste-aroma release simulation for product specific flavour design



#### Texture and taste tailor-made

Most of the taste molecules are not released upon chewing but are swallowed with the food. We help you to optimize the breakdown properties of your product to facilitate tastant release and enhance taste intensity.

### Track record

- Patent application: Olfactoscan®
- Artificial throat
- Bitterness masking: Peptopro
- Aroma induced sweetness enhancement in softdrinks
- An excellent tasting low SAFA (saturated fatty acids) ice cream by masking oxidation off flavours

### About NIZO food research

NIZO food research is a leading, independent contract research organization located in 'Food Valley', the Netherlands. Our services support your innovations (flavour, texture, health), cost management (process efficiency, ingredient replacement, test productions), and responsible entrepreneurship (food safety and quality, sustainability, evidence-based health claims). **Creating benefits together with you**

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