


VOICE OF TECHNICAL:

SOLVING TASTE CHALLENGES: TASTE MODIFICATION EXPLAINED

 Flavor solutions



With an increased consumer focus on health and wellness, developing nutritious products continues to be a priority in 2024. Whether striving to create more fortified products or tasked with reducing the sugar or salt content, you may face taste and textural challenges during product development. **Taste modification provides solutions to the most difficult taste challenges to deliver better-for-you products that consumers will love.**

Read on to learn from Dr. Lindsey Szymczak, Research and Innovation Scientist how taste modification can be a crucial tool in a developer's arsenal.

What is taste modification? Why does it matter?

By definition, taste modification is: The use of chemical substances (taste modifiers) in order to alter one or more of the basic five tastes (salty, sour, bitter, sweet, and umami).

Rather than delivering a characterizing flavor (think a leading or featured flavor like strawberry or chocolate), taste modifiers are non-characterizing flavor systems that modify perceived taste, trigeminal and mouthfeel attributes of a food or beverage product. Taste modifiers can be paired with characterizing flavors to meet all your flavoring needs.

Consumers are looking for products that meet their ever-growing nutritional demands without sacrificing flavor. Taste modification can help bridge the gap to deliver functional and fortified foods with great taste.

What challenges can taste modification solve?

The challenges best addressed with taste modification technologies are often those that come from healthier and better-for-you products such as **masking off-notes, optimizing mouthfeel, and enhancing body and taste**. These are challenges that aren't easily solved by a characterizing flavor alone.

Masking Off-Notes: Bitterness, sourness, metallic and herbal/botanical notes from ingredients like proteins, caffeine, and vitamins can be masked. These are often found in plant-based innovations, performance nutrition beverages and health care applications.

Optimizing Mouthfeel: Taste modification can improve astringency and enhance the mouthfeel of a product.

Sugar/Salt Reduction: Our enhancement technology can help increase the perception of sweet and salty tastes.



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McCormick Flavor Solutions Taste Modification Approach

We use a three-step process, where our team of experts have open communication with our customers throughout to ensure we're meeting their taste expectations.

1. Screening a product for taste challenges organoleptically and analytically.
2. Applying taste modification approaches to suit flavor and label requirements.
3. Validating the taste modification solution from an analytical and sensory perspective.

Optify™ is our proprietary portfolio of custom taste modification solutions. Optify allows us to create fully rounded products and solutions. We don't stop at just providing a modifying flavor— we go the extra mile to support our customers. We can optimize a base, apply our Optify solutions to mitigate remaining off-notes, and then add characterizing flavor to deliver a ready for market product.



Exploring Taste Modification? Meet Dr. Lindsey.

Dr. Lindsey Szymczak manages the Optify™ platform.

What do you find most exciting about your role?

Finding new taste modifying ingredients and figuring out how they work best. I love the challenge of making something really offending taste better—it's a lot of trial and error, but it's fun to see how all of our tools function in different applications!

What does the future hold for taste modification?

To stay ahead of tomorrow's taste challenges, we're constantly monitoring consumer trends, emerging ingredients, and regulatory initiatives. Proactively being 'in the know' allows us to be prepared to quickly tackle new challenges. Taste modification will continue to grow in parallel to consumer demand. This will create more opportunity for the evolution and growth of modification, which I'm excited to be a part of!

Click to learn more about Optify™ or reach out to Dr. Lindsey to discuss your taste challenges.

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“It's exciting finding new raw materials to expand our taste modification toolbox and support our customers' taste challenges. ”