

Understanding Alcohol Flavor: Opportunities to Modify Smoothness

Peterson, D.G.

Professor and Director Flavor Research and Education Center

1334 Eckles Avenue, Department of Food Science and Nutrition, University of
Minnesota 55108, dgp10@umn.edu

Abstract

The smoothness of alcoholic beverages is a general descriptor often associated with product maturity and considered a desirable trait. From a sensory perspective smoothness is related to lower perceived trigeminal burn sensations, sourness, and astringency. Most studies on smoothness thus far have focused on changes in aroma markers as influenced by processing steps, such as fermentation, distillation, clarification, filtration (depending on the final product) as well as during maturation-storage. This presentation will focus on the chemical drivers that influence the trigeminal burn (smoothness) of alcoholic products and how these attributes are influenced by the product chemistry and processing steps. Understanding the molecular basis for modulating trigeminal burn provides the basis to develop ingredient and/or processing technologies to improve palatability of a wide range of alcoholic products such as fermented and distilled spirits, pharmaceutical and personal hygiene products.