

GOUDA CHEESE SURRENDERS ITS SECRETS

Scientists in Germany have identified key compounds that contribute to the complex flavor and texture of aged Gouda, a mild cheese of Dutch origin. Food chemist Thomas Hofmann of the Technical University of Munich, Weihenstephan, and colleagues made their discovery with the assistance of a group of committed taste panelists, who underwent weekly training sessions for at least two years in order to help with the research. Hofmann's team also wielded gel permeation chromatography, high-



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performance liquid chromatography, and mass spectrom-

Kokumi peptides enhance the flavor of aged Gouda cheese.

etry in their quest to isolate and identify the compounds that enhance Gouda's character. The researchers compared the composition of a "young" Gouda cheese that had ripened for only four weeks with that of a "mature" Gouda that had ripened for 44 weeks. The aged cheese has a fuller, more complex, and long-lasting taste that is known as the "kokumi sensation," a term used by Japanese researchers to describe a rich, thick taste. Hofmann's team determined that the kokumi sensation can be traced to six γ -L-glutamyl peptides (*J. Agric. Food Chem.* 2009, 57, 1440). Their findings could be used to enhance the flavor of other dairy products.—SLR