

Sara Risch - "Flavor Chemistry"

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Sara Risch is the principal in Science by Design, a consulting firm she founded in 1993. She works with food, flavor and packaging companies on new product development, product-package compatibility, and gives general technical guidance. She took a break from her consulting business and was Professor and Director of the School of Packaging at Michigan State University from 2004 to 2006. She also spent five years as Director of R&D for Golden Valley Microwave Foods (now part of ConAgra Snack Foods). Her activities within ACS include currently serving as a Councilor for the Agricultural and Food Chemistry Division and as a member of the Committee on Committees. She also works with the Office of Communications on the "Cooks with Chemistry" series. Sara received her B.S and Ph.D. in Food Science from the University of Minnesota. She received an MS in Food Science from the University of Georgia.

#### Abstract

We eat food for basic nourishment but also for the enjoyment that it gives us. One big part of that enjoyment is the flavor of the food. Many people will try a product once, but if it doesn't taste good, they will not try it again. Flavor chemistry is a fascinating area of research covering the analysis of what contributes to the flavor of the products that we eat to development of flavors that will work in a wide variety of products to the quest for new and unique flavors. As an example of what contributes to the flavor of a product, analytical chemists have identified over 800 volatile compounds in roasted coffee. The question is which of these are most important to creating a good coffee flavor. In terms of development, consumers want convenience and quality. Flavors tend to be unstable so there is a constant challenge to find ways to protect flavors as they go through heating, cooling, packaging and storage. Finally, there is always the search for that new or unique flavor that will be the next big blockbuster flavor--the next blue raspberry. An overview of flavor chemistry and current areas of research will be presented.