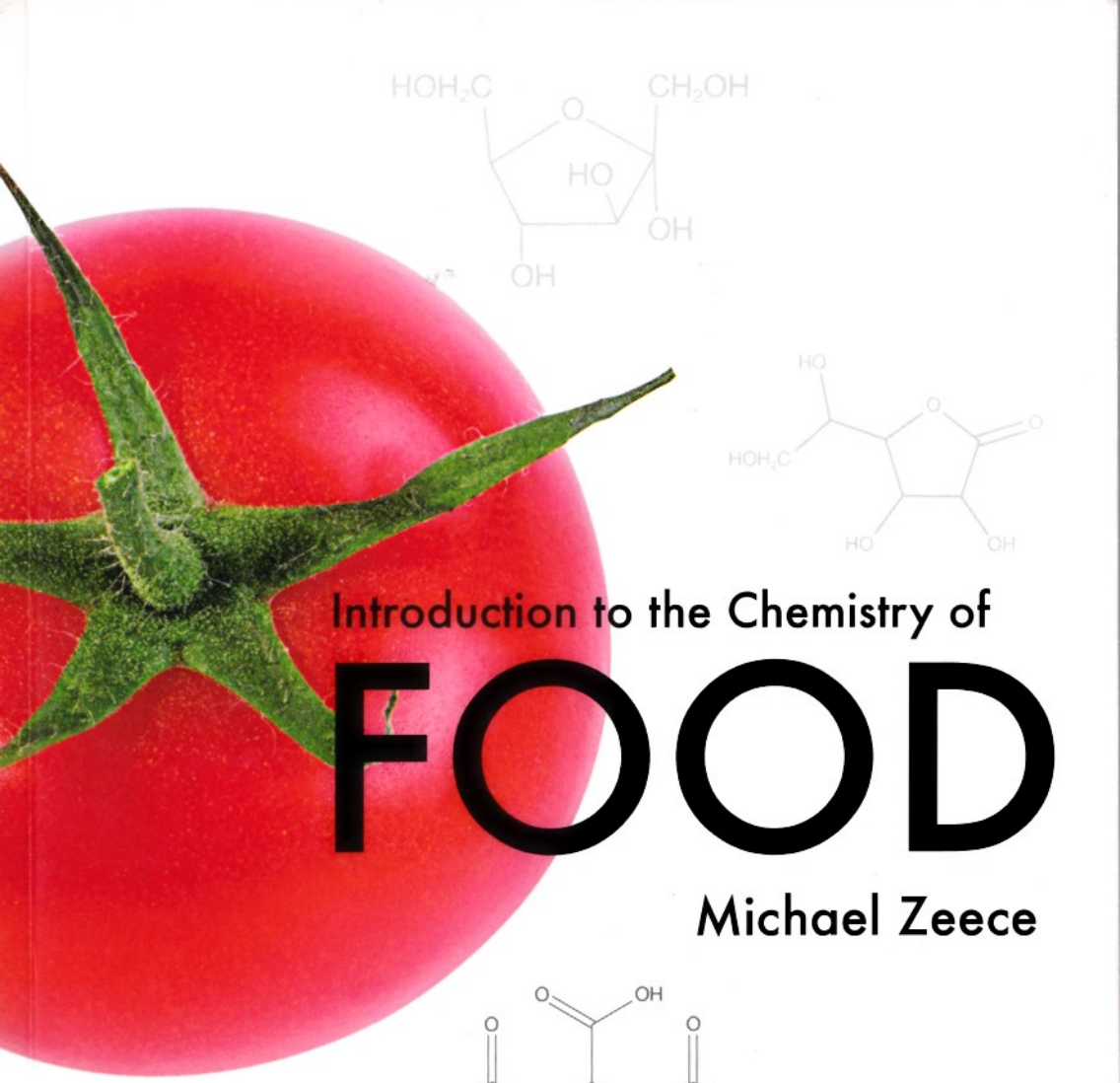

Introduction to the Chemistry of FOOD

Michael Zeece

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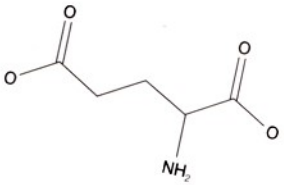

Michael Zeece

A definitive resource that integrates chemistry with food components, illustrates effects of chemistry on food quality, and highlights the relationship between diet and health

Introduction to the Chemistry of Food describes the composition of food and the chemistry of its components. This innovative approach enables students in food science, nutrition, culinology, and food entrepreneurship to better understand the role of chemistry in food. Specifically, the text describes food components, demonstrates the importance of chemistry to sensory and nutritional quality, and highlights its role in the creation of novel foods.

Detailed descriptions of major food systems and a summary of future directions are provided. Each chapter contains review questions, discussion topics related to contemporary food issues, and resources for further learning. Text and supplemental materials can be used in traditional face-to-face, distance, or blended learning formats.

Introduction to the Chemistry of Food is a valuable resource for students in the science and/or business of food. Topics covered in the text can be used in courses dealing with food composition/nutrient content, basic chemistry, food processing, and product development. Highlights of specific topics include a description of:

- Major and minor components of food
- Chemistry affecting the sensory and safety aspects of food
- Flavor and the brain: Molecules and memory
- Food additives, applications, and controversies
- Novel plant-based animal foods
- Sustainable protein sources
- Composition and applications of major food systems
- Gut microbiome and implications for the relationship between diet and health

Michael Zeece is currently Professor Emeritus, Department of Food Science, University of Nebraska. He has a Ph.D. Food Science, Iowa State University, an M.Sc. Biochemistry, University of Illinois and a B.Sc. Biology/Chemistry, St Louis University. His teaching experience includes Food Chemistry Lecture and Laboratory (1984–2015), Food Proteins Post Graduate Level (1984–2015), Advanced Food Analysis (1998–2010), and Chemistry of Food-Distance Education (2009–19). Professor Zeece's research expertise is focused on plant and animal protein characterization, food enzymes, and analytical methods. His teaching background makes him the perfect author for a textbook in the Food C

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