DESCRIPTION

Reviews innovative processing techniques and recent developments in food formulation, identification, and utilization of functional ingredients

*Food Formulation: Novel Ingredients and Processing Techniques* is a comprehensive and up-to-date account of novel food ingredients and new processing techniques used in advanced commercial food formulations. This unique volume will help students and industry professionals alike in understanding the current trends, emerging technologies, and their impact on the food formulation techniques. Contributions from leading academic and industrial experts provide readers with informed and relevant insights on using the latest technologies and production processes for new product development and reformulations.

The text first describes the basis of a food formulation, including smart protein and starch ingredients, healthy ingredients such as salt and sugar replacers, and interactions within the food components. Emphasizing operational principles, the book reviews state-of-the-art 3D printing technology, encapsulation and a range of emerging technologies including high pressure, pulsed electric field, ultrasound and supercritical fluid extraction. The final chapters discuss recent developments and trends in food formulation, from foods that target allergies and intolerance, to prebiotic and probiotic food formulation designed to improve gut health. A much-needed reference on novel sourcing of food ingredients, processing technologies, and application, this book:

- Explores new food ingredients as well as impact of processing on ingredient interactions
- Describes new techniques that improve the flavor and acceptability of functional food ingredients
• Reviews mathematical tools used for recipe formulation, process control and consumer studies

• Includes regulations and legislations around tailor-made food products

Food Formulation: Novel Ingredients and Processing Techniques is an invaluable resource for students, educators, researchers, food technologists, and professionals, engineers and scientists across the food industry.

ABOUT THE AUTHOR

Shivani Pathania is a Research Officer based in Teagasc Food Research Centre, Ashtown, Ireland. Her research interests include food packaging, food formulation, novel food processing technologies and ingredient interactions. She supports food companies on development of pilot scale processes for new formulations.

Brijesh Tiwari is a Principal Research Officer at Teagasc Food Research Centre, Ashtown. His research interests include advanced food processing and extraction technologies. He is the series editor of the IFST Advances in Food Science book series. He currently serves as the Editor-in-Chief of the Journal of Food Processing and Preservation.

SERIES

IFST Advances in Food Science

To purchase this product, please visit https://www.wiley.com/en-gb/9781119614760