

**SpringerBriefs in Molecular Science**

Chemistry of Foods

**Salvatore Parisi**



**Nutrition, Chemistry,  
and Health Effects  
of Sugar, Salt, and  
Milkfat**

 Springer

SpringerBriefs in Molecular Science

## **Chemistry of Foods**

### **Series Editors**

Salvatore Parisi, Lourdes Matha Institute of Hotel Management and Catering  
Technology, Thiruvananthapuram, Kerala, India

Ricardo Pereira, Centre of Biological Engineering, University of Minho, Braga,  
Portugal

The series Springer Briefs in Molecular Science: Chemistry of Foods presents compact topical volumes in the area of food chemistry. The series has a clear focus on the chemistry and chemical aspects of foods, topics such as the physics or biology of foods are not part of its scope. The Briefs volumes in the series aim at presenting chemical background information or an introduction and clear-cut overview on the chemistry related to specific topics in this area. Typical topics thus include:

- Compound classes in foods—their chemistry and properties with respect to the foods (e.g. sugars, proteins, fats, minerals, ...)
- Contaminants and additives in foods—their chemistry and chemical transformations
- Chemical analysis and monitoring of foods
- Chemical transformations in foods, evolution and alterations of chemicals in foods, interactions between food and its packaging materials, chemical aspects of the food production processes
- Chemistry and the food industry—from safety protocols to modern food production

The treated subjects will particularly appeal to professionals and researchers concerned with food chemistry. Many volume topics address professionals and current problems in the food industry, but will also be interesting for readers generally concerned with the chemistry of foods. With the unique format and character of SpringerBriefs (50 to 125 pages), the volumes are compact and easily digestible. Briefs allow authors to present their ideas and readers to absorb them with minimal time investment. Briefs will be published as part of Springer's eBook collection, with millions of users worldwide. In addition, Briefs will be available for individual print and electronic purchase. Briefs are characterized by fast, global electronic dissemination, standard publishing contracts, easy-to-use manuscript preparation and formatting guidelines, and expedited production schedules.

Both solicited and unsolicited manuscripts focusing on food chemistry are considered for publication in this series. Submitted manuscripts will be reviewed and decided by the series editor, Prof. Dr. Salvatore Parisi.

To submit a proposal or request further information, please contact Dr. Sofia Costa, Publishing Editor, via [sofia.costa@springer.com](mailto:sofia.costa@springer.com) or Prof. Dr. Salvatore Parisi, Book Series Editor, via [drparisi@inwind.it](mailto:drparisi@inwind.it) or [drsalparisi5@gmail.com](mailto:drsalparisi5@gmail.com)

Salvatore Parisi

# Nutrition, Chemistry, and Health Effects of Sugar, Salt, and Milkfat

 Springer

Salvatore Parisi  
Lourdes Matha Institute of Hotel  
Management and Catering Technology  
Thiruvananthapuram, Kerala, India

ISSN 2191-5407                      ISSN 2191-5415 (electronic)  
SpringerBriefs in Molecular Science  
ISSN 2199-689X                      ISSN 2199-7209 (electronic)  
Chemistry of Foods  
ISBN 978-3-031-67394-8              ISBN 978-3-031-67395-5 (eBook)  
<https://doi.org/10.1007/978-3-031-67395-5>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2024

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

If disposing of this product, please recycle the paper.

# Acknowledgments

This book is the 45<sup>th</sup> title of the *Springer Briefs in Molecular Science: Chemistry of Foods* series: it can be published exactly 10 years after the first book in 2014, demonstrating that the scientific interest in food chemistry and related disciplines continues to remain notable. I wish to mention and thank Dr. Ramesh Kumar Sharma (Food Safety Consultant and Scientific Writer, Tilam Sangh Rajasthan, Bikaner, Rajasthan, India) who conceived the original project of the book (May 2022) and its initial development.

Palermo, Italy  
May 2024

Salvatore Parisi  
Series Editor,  
*Springer Briefs in Molecular Science: Chemistry of Foods*