

# Contents

|           |   |            |
|-----------|---|------------|
| <b>1</b>  | <b>Introduction.....</b>  | <b>1</b>   |
|           | Nicolaas Jan Zuidam and Viktor A. Nedović   |            |
| <b>2</b>  | <b>Overview of Microencapsulates for Use in Food Products<br/>or Processes and Methods to Make Them .....</b> | <b>3</b>   |
|           | Nicolaas Jan Zuidam and Eyal Shimoni  |            |
| <b>3</b>  | <b>Materials for Encapsulation.....</b>   | <b>31</b>  |
|           | Christine Wandrey, Artur Bartkowiak, and Stephen E. Harding   |            |
| <b>4</b>  | <b>Characterization Methods of Encapsulates.....</b>  | <b>101</b> |
|           | Zhibing Zhang, Daniel Law, and Guoping Lian   |            |
| <b>5</b>  | <b>Encapsulation of Aroma.....</b>  | <b>127</b> |
|           | Nicolaas Jan Zuidam and Emmanuel Heinrich   |            |
| <b>6</b>  | <b>Microencapsulation of Fish Oil.....</b>  | <b>161</b> |
|           | Christiaan M. Beindorff and Nicolaas Jan Zuidam   |            |
| <b>7</b>  | <b>Encapsulation of Iron and Other Micronutrients<br/>for Food Fortification.....</b>                         | <b>187</b> |
|           | Michael B. Zimmermann and Erich J. Windhab  |            |
| <b>8</b>  | <b>Encapsulation of Carotenoids.....</b>  | <b>211</b> |
|           | Henelyta S. Ribeiro, Heike P. Schuchmann, Robert Engel,<br>Elke Walz, and Karlis Briviba                      |            |
| <b>9</b>  | <b>Encapsulation of Enzymes and Peptides.....</b>   | <b>253</b> |
|           | Gabrie M.H. Meesters  |            |
| <b>10</b> | <b>Encapsulation of Probiotics for use in Food Products.....</b>  | <b>269</b> |
|           | Verica Manojlović, Viktor A. Nedović, Kasipathy Kailasapathy,<br>and Nicolaas Jan Zuidam                      |            |

|           |   |            |
|-----------|---|------------|
| <b>11</b> | <b>Bioprocess Intensification of Beer Fermentation<br/>Using Immobilised Cells .....</b>  | <b>303</b> |
|           | Pieter J. Verbelen, Viktor A. Nedović, Verica Manojlović,<br>Freddy R. Delvaux, Ida Laskošek-Čukalović, Branko Bugarski,<br>and Ronnie Willaert |            |
| <b>12</b> | <b>Immobilization of Microbial Cells for Alcoholic<br/>and Malolactic Fermentation of Wine and Cider .....</b>                                  | <b>327</b> |
|           | Yiannis Kourkoutas, Verica Manojlović, and Viktor A. Nedović  |            |
| <b>13</b> | <b>Immobilization of Cells and Enzymes for Fermented<br/>Dairy or Meat Products.....</b>  | <b>345</b> |
|           | Claude P. Champagne, Byong H. Lee, and Linda Saucier  |            |
| <b>14</b> | <b>Encapsulates for Food Bioconversions<br/>and Metabolite Production.....</b>  | <b>367</b> |
|           | Véronique Breguet, Vojislav Vojinovic, and Ian W. Marison   |            |
|           | <b>Index.....</b>   | <b>391</b> |

Encapsulation Technologies for Active Food Ingredients  
and Food Processing

Zuidam, N.J.; Nedovic, V. (Eds.)

2010, XII, 400 p., Hardcover

ISBN: 978-1-4419-1007-3