

# Contents

Series Preface.....	vii
Preface.....	ix
Series Editor.....	xi
Acknowledgments.....	xiii
Contributors .....	xv
<b>Chapter 1</b> Amperometric Biosensors in Food Processing, Safety, and Quality Control.....	1
<i>Ismail Hakkı Boyacı and Mehmet Mutlu</i>	
<b>Chapter 2</b> Basic Principles of Optical Biosensors in Food Engineering .....	53
<i>Ebru Akdoğan and Mehmet Mutlu</i>	
<b>Chapter 3</b> Mass Sensitive Biosensors: Principles and Applications in Food.....	71
<i>Selma Mutlu</i>	
<b>Chapter 4</b> Biosensing for Food Safety .....	89
<i>Maria Isabel Pividori and Salvador Alegret</i>	
<b>Chapter 5</b> Electrochemical DNA Biosensors in Food Safety .....	123
<i>Pınar Kara, Ozan Kılıçkaya, and Mehmet Şengün Özsoz</i>	
<b>Chapter 6</b> Biosensors for the Assessment of Natural Toxins in Food.....	135
<i>Beatriz Prieto-Simón, Thierry Noguer, and Mònica Campàs</i>	
<b>Chapter 7</b> Biosensors for Pesticides and Foodborne Pathogens .....	147
<i>Munna S. Thakur, Raghuraj S. Chouhan, and Aaydha C. Vinayaka</i>	
<b>Chapter 8</b> Impedance Biosensors/Biochips for Detection of Foodborne Pathogens.....	193
<i>Liju Yang</i>	

<b>Chapter 9</b>	Application of Biosensors for the Quality Assurance of Dairy Products.....	227
	<i>P. Narendra Raju and K. Hanumantha Rao</i>	
<b>Chapter 10</b>	Electrochemical Biosensors as a Tool for the Determination of Phenolic Compounds and Antioxidant Capacity in Foods and Beverages.....	257
	<i>Montserrat Cortina-Puig, Thierry Noguer, Jean-Louis Marty, and Carole Calas-Blanchard</i>	
<b>Chapter 11</b>	Neural Networks: Their Role in the Field of Sensors .....	273
	<i>José S. Torrecilla</i>	
<b>Chapter 12</b>	Trends in Biosensing and Biosensors .....	287
	<i>Frank Davis and Séamus P.J. Higson</i>	
<b>Index</b>	.....	325