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Edited by

*Klaus-Viktor Peinemann, Suzana Pereira Nunes, and
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Preface

In the Membrane Technology book series we collect and present in different volumes the most relevant examples of how synthetic membranes are contributing to finding solutions to key issues of the world population. We cover essential topics starting with life science, followed by energy and water. In this volume, we also approach certainly one of the most crucial aspects for everyday life: food. Membranes have been shown very early to be useful in several processes of food industries. The dairy industry was one of the first sectors to profit from membrane technology on a large scale. Nowadays, a large part of the available milk products in developed countries involves at least one step using membrane processes. Whey processing and cheese manufacture are good examples. Membranes can make the processes more effective and bring quality advantages, which are hardly beaten by traditional methods. In recent decades membranes have become a routine technology also in other food industries. The needs for transportation at long distances have stimulated the use of membranes to concentrate juices. Membranes have been the technology of choice in applications where keeping aroma and processing at mild temperatures is essential. It has led to new process routes and to reducing droplet sizes in emulsification techniques. The market for nonalcoholic beer is growing and it is still a big challenge to keep the taste like the original products. Membranes are substituting steps of manufacture of the most traditional industries, like wine production. Finally, membranes play an essential role also in food packaging, where concepts of gas permeability are important to meet the new demands of food safety and storage. This volume will appeal to workers in the field of membrane technology applied to food, bringing together information on the already established and the potential technologies in this field.

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