New Release

Drying Technologies For Foods

Fundamentals and Applications Part I - III

REVIEW OF PART - I

Drying Technology,
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In a nut shell, each chapter has offered a detailed description of various drying techniques and their applications in a very easy to read and understand language with very clear explanation of the concepts. What makes this book stand out in the crowded drying literature is that each of the contributors of this book has worked extensively in their respective areas of drying technology, and their wide experience will greatly benefit the readers and industrial researchers.

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READERSHIP

The book is intended for those related to processing and preservation of foods.

About the Volumes

Drying is an important unit operation used in the industry for processing and preservation of food products. Food industry always looks for cost effective and energy efficient drying techniques to commercially succeed in their ventures and to fulfill demand of high quality dried food products. Although a large volume of technical literature is available on drying of foods, it is still quite challenging for scientists and engineers to improve upon the existing drying systems and quality of the products.

The first part of the book 'Drying Technologies for Foods: Fundamentals and Applications' covers fundamental principles of different drying techniques such as spray drying, microwave drying, superheated steam drying, heat pump drying, solar and impingement drying etc. The second part of this book offers comprehensive review of various novel drying techniques such as refractance window dehydration, supercritical drying as well as PCM-based solar dryers, vacuum dryers etc.

In continuation of this series a third part is presented with the aim of providing in depth information about the drying technologies not covered in the earlier two parts. This book consists of 14 chapters detailing freeze drying, atmospheric freeze drying, swell drying, multi-flash drying, electro-hydrodynamic drying, pulse combustion drying, foam mat drying, ultrasound- assisted drying and fluidized bed drying. It also includes chapters which are commodity-specific such as mushroom drying, drying and roasting of cocoa and coffee beans. The degradation mechanism and kinetics of vitamin C degradation in fruits and vegetables, kinetics modeling of drying process for the recovery of bioactive compounds and energy calculation procedures for dryers is also covered which would be helpful to improve dryer operation and efficiency.

The encouraging response to volumes 1 and 2 of this set has been a great motivating factor to prepare this volume, where again the emphasis is on up-to-date information on the topic with clear and concise presentation for better understanding by students, researchers, teachers, scientists and engineers. We are greatly thankful to our readers for constructive inputs and suggestions for further improvement of the quality of book set are always welcome.

The editors wish to sincerely acknowledge the authors for their invaluable contributions to the part 3 of this book series. These authors are leading scientists, engineers and experts from different parts of the world. Each of the invited contributors in this book has worked extensively in the respective area of drying technology and hence their strong experience in the form of chapter will benefit the readers. We are pleased to thank all of them for their great contributions in this book. We also thankfully acknowledge the kind guidance and support received from Dr Chindi Vasudevappa, Vice Chancellor of NIFTEM at every step in the process of completing this book.

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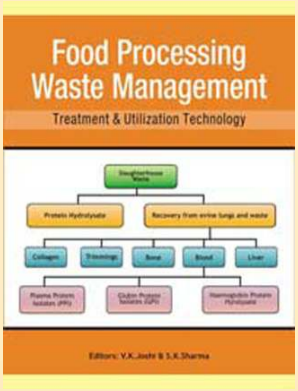

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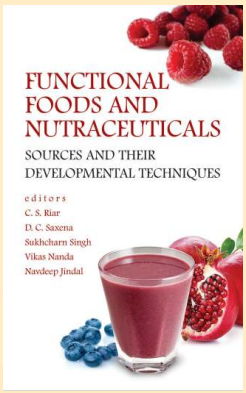

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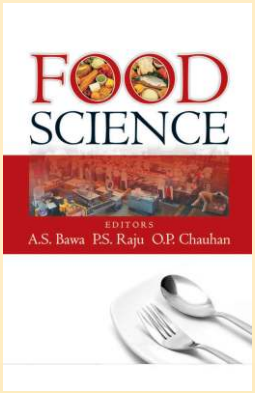

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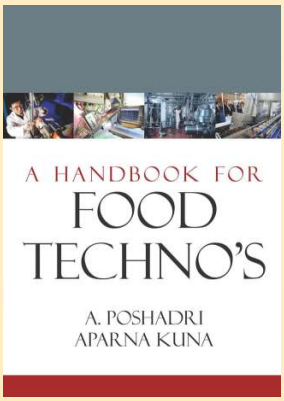

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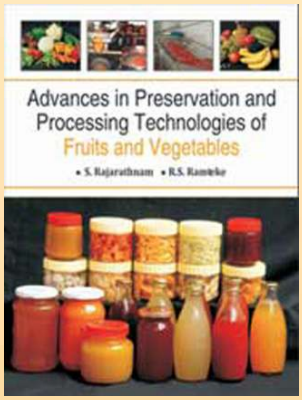

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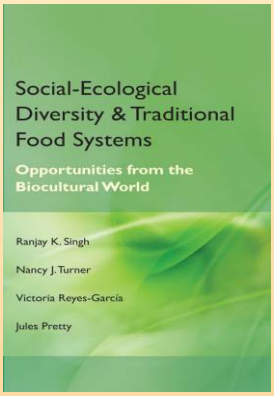

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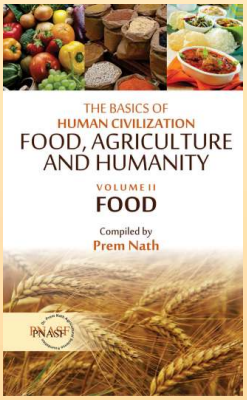

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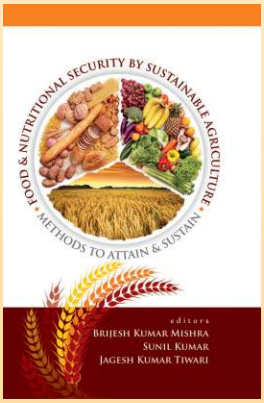

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