

## **Book Review**

### **Handbook of Drying of Vegetables and Vegetable Products**

Edited by Min Zhang, Bhesh Bhandari and Zhongxiang Fang

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More than 40 internationally recognized experts from 12 different countries (Australia, Brazil, Canada, China, France, Germany, Morocco, Poland, Singapore, Sri Lanka, Turkey and USA) have contributed to this high quality, authoritative and potentially very impactful book. Although there are numerous research articles, review papers as well as books devoted to vegetables and vegetable products drying, this Handbook is unique as it provides a critical comprehensive overview of all the key issues about vegetable and vegetable products drying. Current status, recent advances, future research trends and opportunities related to vegetables and vegetable products drying technologies are summarized in a way that is useful for both academia and industry.

The Handbook includes 20 chapters, which are divided into four sections intended to cover different aspects of drying of vegetables and vegetable products viz. Drying Processes and Technologies, Drying of Specific Vegetable Products, Changes in Properties during Vegetable Drying and Other Related Topics.

In the section on Drying Processes and Technologies, in addition to the most frequently used drying technologies for vegetables and vegetable products, namely, hot air drying (Chapter 1), freeze drying (Chapter 2), microwave drying (Chapter 3) and infrared drying (Chapter 4), many innovative and relatively new drying techniques, e.g., radio frequency drying (Chapter 3), ultrasound-assisted drying (Chapter 5), smart drying (Chapter 6), foam-mat drying (Chapter 7) and instant controlled pressure drop drying (Chapter 13) are also comprehensively reviewed. The section on Drying of Specific Vegetable Products then reviews selected products such as vegetable snacks (Chapter 9) as well as current R&D status and new advances of drying for other plant-based bioproducts, e.g., herbs and spices (Chapter 8), edible flowers (Chapter 10) and mushrooms (Chapter 11).

Quality attributes such as nutrients, aroma and color are important indices used for evaluation of dried product quality and have distinct effect on consumer acceptability of the dried product. So the section on Changes in Properties during Vegetable Drying covers such topics as pigments and nutrients during vegetable drying processes, dried products storage and their associated color changes (Chapter 12), aroma aspects of fresh and dried vegetables (Chapter 14) and non-destructive measurement of quality parameters of vegetables during drying by optical sensing technology (Chapter 17). In the section on Other Related Topics, vegetable dryer modeling (Chapter 15), numerical modeling of morphological changes of food plant materials during drying

(Chapter 16), computer vision and its applications for drying of vegetables (Chapter 18), novel packaging of dried vegetable products (Chapter 19) and microbiology and safety of dried vegetables (Chapter 20) are examined and carefully discussed.

As one of the most important books in the *Advances in Drying Science and Technology* series with Prof. Arun Mujumdar as the Series Editor, this Handbook is worth purchase for one's book shelves; it is a good reference for research students, academic as well as industrial researchers and industrial designers in the areas of food processing. This Handbook makes a definitive contribution to drying research and food science and I hope it will trigger the interest of new entrants to vegetable and vegetable products drying and processing.

*Hong-Wei Xiao*

College of Engineering, China Agricultural University

Beijing, China

E-mail: [xhwcaugxy@163.com](mailto:xhwcaugxy@163.com)