



# Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)

*From CRC Press*

Download now

Read Online ➔

## **Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)** From CRC Press

Extraction is an important operation in food engineering, enabling the recovery of valuable soluble components from raw materials. With increasing energy costs and environmental concerns, industry specialists are looking for improved techniques requiring less solvents and energy consumption. **Enhancing Extraction Processes in the Food Industry** is a comprehensive resource providing clear descriptions of the latest extraction methods and instruments used in food laboratories.

The book begins with an overview of solvent extraction technology. It examines pulsed electric fields and their effect on food engineering, and the potential and limitations of microwave-assisted extraction. It explores diffusion processes and reviews what is known about electrical discharge processes in the extraction of biocompounds.

Next, the book summarizes current knowledge on conventional and innovative techniques for the intensification of extractions from food and natural products, focusing on environmental impacts. It reviews recent developments in supercritical CO<sub>2</sub> extraction of food and food products, describes the pressurized hot water extraction (PHWE) process, and examines future trends for PHWE. The book also examines essential oil extraction, and the tools and techniques of high pressure-assisted extraction. The authors demonstrate its application using litchi and longan fruits as examples.

The final chapters focus on extrusion-assisted extraction, gas-assisted mechanical expression, mechanochemically assisted extraction, reverse micellar extraction, and aqueous two-phase extraction. The book concludes with a chapter on the treatment of soybeans through enzyme-assisted aqueous processing, examining the economics involved as well as the development of the process.

A solid review of modern approaches that enhance extraction processes, this volume is destined to pave the way for future research and development in the field.

 [Download Enhancing Extraction Processes in the Food Industr ...pdf](#)

 [Read Online Enhancing Extraction Processes in the Food Indus ...pdf](#)

# Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)

*From CRC Press*

**Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)** From CRC Press

Extraction is an important operation in food engineering, enabling the recovery of valuable soluble components from raw materials. With increasing energy costs and environmental concerns, industry specialists are looking for improved techniques requiring less solvents and energy consumption. **Enhancing Extraction Processes in the Food Industry** is a comprehensive resource providing clear descriptions of the latest extraction methods and instruments used in food laboratories.

The book begins with an overview of solvent extraction technology. It examines pulsed electric fields and their effect on food engineering, and the potential and limitations of microwave-assisted extraction. It explores diffusion processes and reviews what is known about electrical discharge processes in the extraction of biocompounds.

Next, the book summarizes current knowledge on conventional and innovative techniques for the intensification of extractions from food and natural products, focusing on environmental impacts. It reviews recent developments in supercritical CO<sub>2</sub> extraction of food and food products, describes the pressurized hot water extraction (PHWE) process, and examines future trends for PHWE. The book also examines essential oil extraction, and the tools and techniques of high pressure-assisted extraction. The authors demonstrate its application using litchi and longan fruits as examples.

The final chapters focus on extrusion-assisted extraction, gas-assisted mechanical expression, mechanochemically assisted extraction, reverse micellar extraction, and aqueous two-phase extraction. The book concludes with a chapter on the treatment of soybeans through enzyme-assisted aqueous processing, examining the economics involved as well as the development of the process.

A solid review of modern approaches that enhance extraction processes, this volume is destined to pave the way for future research and development in the field.

**Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press Bibliography**

- Sales Rank: #2439638 in eBooks
- Published on: 2016-04-19
- Released on: 2016-04-19
- Format: Kindle eBook

 [Download Enhancing Extraction Processes in the Food Industr ...pdf](#)

 [Read Online Enhancing Extraction Processes in the Food Indus ...pdf](#)

## **Editorial Review**

### About the Author

**Nikolai I. Lebovka** is currently head of the Physical Chemistry Department of the Biocolloid Chemistry Institute and professor of physics at Taras Shevchenko National University of Kiev. He studies electric field-induced effects in biological and food materials and is also active in the fields of colloids and biocolloids, theory and applications of nanocomposites, computation physics, and theory and practice of percolation phenomena. He has published more than 230 papers in peer-reviewed journals and several chapters in books, and was a member of the organizing committee of several international conferences.

Eugene Vorobiev is a full professor at the Chemical Engineering Department and head of Laboratory for Agro-Industrial Technologies at the Université de Technologie de Compiègne (UTC), France. His main research interests are focused on mass transfer phenomena, theory and practice of solid-liquid separation, and innovative food technologies (especially electrotechnologies). He has published more than 200 peer-reviewed papers and is the author of 18 patents. He was awarded the Gold Medal of the Filtration Society (2001) and is a Laureate of the Price for the innovative technique for the environment (Ademe, 2008). He acted as a chairman of several international conferences.

Farid Chemat is a full professor of chemistry and director of the Laboratory for Green Extraction Techniques of Natural Products (GREEN) at the Université d'Avignon et des Pays de Vaucluse, France. His main research interests are focused on innovative and sustainable extraction techniques (especially microwave, ultrasound, and green solvents) for food, pharmaceutical, and cosmetic applications. His research activities are documented by more than 100 scientific peer-reviewed papers and six patents. He is the coordinator of "France Eco-Extraction," a group that deals with international dissemination of research and education on green extraction technologies.

## **Users Review**

### **From reader reviews:**

#### **Valerie Hemming:**

The book *Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)* give you a sense of feeling enjoy for your spare time. You can use to make your capable considerably more increase. Book can to be your best friend when you getting tension or having big problem together with your subject. If you can make reading through a book *Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)* for being your habit, you can get far more advantages, like add your current capable, increase your knowledge about several or all subjects. It is possible to know everything if you like wide open and read a reserve *Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering)*. Kinds of book are several. It means that, science book or encyclopedia or others. So , how do you think about this publication?

**Patrick Adkins:**

Does one of the book lovers? If yes, do you ever feeling doubt if you find yourself in the book store? Try to pick one book that you never know the inside because don't evaluate book by its handle may doesn't work here is difficult job because you are scared that the inside maybe not seeing that fantastic as in the outside seem likes. Maybe you answer can be Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) why because the amazing cover that make you consider about the content will not disappoint you. The inside or content will be fantastic as the outside or cover. Your reading 6th sense will directly assist you to pick up this book.

**Melissa Alfonso:**

As a university student exactly feel bored to reading. If their teacher requested them to go to the library or to make summary for some e-book, they are complained. Just minor students that has reading's heart or real their passion. They just do what the teacher want, like asked to the library. They go to right now there but nothing reading significantly. Any students feel that examining is not important, boring along with can't see colorful images on there. Yeah, it is to get complicated. Book is very important for yourself. As we know that on this time, many ways to get whatever we wish. Likewise word says, many ways to reach Chinese's country. Therefore this Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) can make you truly feel more interested to read.

**Charles Powers:**

Guide is one of source of understanding. We can add our expertise from it. Not only for students and also native or citizen have to have book to know the update information of year to help year. As we know those textbooks have many advantages. Beside most of us add our knowledge, also can bring us to around the world. By the book Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) we can take more advantage. Don't that you be creative people? For being creative person must love to read a book. Just simply choose the best book that acceptable with your aim. Don't be doubt to change your life with this book Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering). You can more desirable than now.

**Download and Read Online Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press #ID6S8H0NBE9**

# **Read Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press for online ebook**

Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press books to read online.

## **Online Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press ebook PDF download**

**Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press Doc**

**Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press Mobipocket**

**Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press EPub**

**ID6S8H0NBE9: Enhancing Extraction Processes in the Food Industry (Contemporary Food Engineering) From CRC Press**