

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/304571979>

Latest Food Technology

Chapter · July 2016

CITATIONS

0

READS

19,092

17 authors, including:



Murlidhar Meghwal

National Institute of Food Technology Entrepreneurship and Management

51 PUBLICATIONS 288 CITATIONS

[SEE PROFILE](#)



Megh Goyal

University of Puerto Rico at Mayagüez

56 PUBLICATIONS 64 CITATIONS

[SEE PROFILE](#)



Mital Kaneria

Saurashtra University

66 PUBLICATIONS 657 CITATIONS

[SEE PROFILE](#)



Ravikumar Biradar

ITC Limited

5 PUBLICATIONS 0 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



International Journal of Analytical Chemistry: Special Issue 'Analysis of Food Bioactive Compounds' [View project](#)



Coffee : Flow Properties of coffee powder [View project](#)

Food Technology

Applied Research and Production Techniques

Editors: Murlidhar Meghwal, PhD

Professor, Food Technology Division, Centre for Emerging Technologies, Jain Global Campus, Jain University, Bangalore, India

Megh R. Goyal, PhD, PE

Retired Professor in Agricultural and Biomedical Engineering, University of Puerto Rico, Mayaguez Campus; Senior Acquisitions Editor, Biomedical Engineering and Agricultural Science, Apple Academic Press, Inc.

Mital J. Kaneria, PhD

Assistant Professor, UGC-CAS Department of Biosciences, Saurashtra University, Rajkot, India

In this era of climate change and food/water/natural resource crises, it is important that current advancements in technology are made taking into consideration the impact on humanity and the environment. This new volume, *Food Technology: Applied Research and Production Techniques*, in the *Innovations in Agricultural and Biological Engineering* book series, looks at recent developments and innovations in food technology and sustainable technologies. Advanced topics in the volume include food processing, preservation, nutritional analysis, quality control, and maintenance as well as good manufacturing practices in the food industries. The chapters are highly focused reports to help direct the development of current food- and agriculture-based knowledge into promising technologies.

Features:

- provides information relevant to technology
- makes suggestions for equipment and devices
- looks at standardization in food technology
- explores new and innovative packaging technology
- studies antimicrobial activities in food
- considers active constituents of foods and provides information about isolation, validation and characterization of major bioactive constituents
- discusses the effect of laws and regulatory guidelines on infrastructure to transform technology into highly value-added products

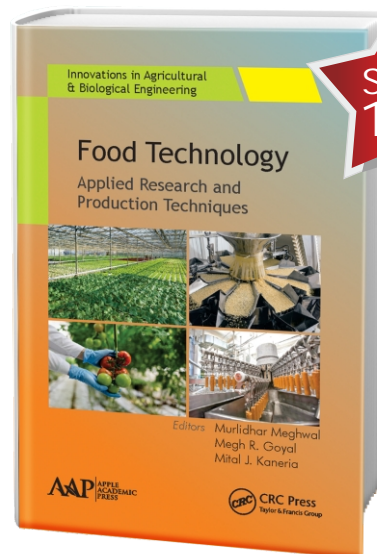
Food Technology: Applied Research and Production Techniques will be a very useful reference book for food technologists, practicing food engineers, researchers, professors, students of these fields and professionals working in food technology, food science, food processing, and nutrition.



US office: 9 Spinnaker Way
Waretown, NJ 08758 USA
Tel: 732-998-5302 / Fax: 866-222-9549
Email: info@appleacademicpress.com

Canadian office: 3333 Mistwell Crescent
Oakville, Ontario L6L 0A2 Canada
Tel: 289-937-6300, Fax: 866-222-9549
Email: info@AppleAcademicPress.com

★
Forthcoming
October 2016
★



Save
15%

CONTENTS

Foreword by T. K. Goswami

Foreword by G. S. Dave

Preface 1 by Murlidhar Meghwal

Preface 2 by Megh R. Goyal and Mital J. Kaneria

Part I : Good Manufacturing Practices and Research in Food Technology

1. Good Manufacturing Practices for Food Processing Industries: Principles and Practical Applications

Murlidhar Meghwal, Uday Heddurshetti, and Ravikumar Biradar

2. Research Planning and Funding Agencies: Focus on Food Technology

Murlidhar Meghwal, Soumitra Banerjee, B. L. Dhananjaya, Rachit Anu, and Uday Heddurshetti

Part II: Latest Food Technologies

3. Food Industry: Use of Plastics in Twenty-First Century

Ewelina Basiak

4. Thermal Processing In Food Technology: Latest Trends

Mahuya Hom Choudhury

5. Non-Destructive Technique of Soft X-Ray for Evaluation of Internal Quality of Agricultural Produce

D. V. Chidanand, C. K. Sunil, and Ashish Rawson

Part III: Role of Antioxidants in Foods

6. *In Vitro* Antioxidant Efficacy: Selected Medicinal Plants of Gujarat

Pooja Moteriya, Jalpa Ram, Mital J. Kaneria, and Sumitra Chanda

7. Antioxidant Activities of Some Marine Algae: Case Study from India

K. D. Rakholiya, J. T. Patel, V. D. Vora, G. S. Sutaria, R. M. Patel, R. A. Dave, and Mital J. Kaneria

8. Omega-3 PUFA from Fish Oil: Silver Based Solvent Extraction

Kirubanandan Shanmugam

9. Anti-Oxidant and Anti-Bacterial Characteristics of Extracts: *Terminalia chebula* and *Terminalia bellerica*

Harsha Patel, Hemali Padalia, Mital J. Kaneria, Yogesh Vaghasiya, and Sumitra Chanda

Part IV: Antimicrobial Activities in Food

10. *In Vitro* Antimicrobial Activity: *Salvadora* Species

Jagruiti Sonagara, Kalpna D. Rakholiya, Hemali Padalia, Sumitra Chanda, and Mital J. Kaneria

11. Antimicrobial Properties of Leaf Extract: *Polyalthia longifolia* var. *Pendula* Under *In-Vitro* Conditions

Kalpna D. Rakholiya, Yogesh Baravalia, and Sumitra Chanda

Part V: Active Constituents of Foods

12. Isolation, Validation and Characterization of Major Bioactive Constituents from Mango Ripe Seed

Kalpna D. Rakholiya, Mital J. Kaneria, and Sumitra V. Chanda



13. Isolation and Characterization of Lycopene from Tomato and Its Biological Activity

Yogesh K. Baravalia, Komal V. Pokar, Khyati C. Bhojani, and Shailesh B. Gondaliya

14. Food Processing using Microbial Control System: Shea Butter *Esiegbuya Ofeoritse Daniel and Okungbowa Francisca Iziegbe*

Other Titles in the Innovations in Agricultural & Biological Engineering Book Series

- Food Engineering: Emerging Issues, Modeling, and Applications
- Modeling Methods and Practices in Soil and Water Engineering
- Emerging Technologies in Agricultural Engineering
- Dairy Engineering: Advanced Technologies and Their Applications
- Soil and Water Engineering: Principles and Applications of Modeling
- Food Process Engineering: Emerging Trends in Research and Their Applications
- Soil Salinity Management in Agriculture: Technological Advances and Applications
- Developing Technologies in Food Science: Status, Applications, and Challenges
- Engineering Practices for Agricultural Production and Water Conservation: An Interdisciplinary Approach
- Flood Assessment: Modeling and Parameterization
- Processing Technologies for Milk and Milk Products: Methods, Applications, and Energy Usage

27 color and 57 b/w illustrations

Approx. 375 pages with index.

ISBN hard: 978-1-77188-509-6. Cat# N11739

ISBN ebook: 978-1-77188-510-2. Cat# NE11794

\$189.95 US | £121.00 hardback. October 2016.

Publish with us.

Apple Academic Press, Inc., welcomes the submission of book proposals from talented book authors and editors for research monographs and textbooks on applied science, mathematics, bioscience, hospitality/tourism, and more.

Please go to

<http://www.appleacademicpress.com/publishwithus.p>

ABOUT THE EDITORS

Murlidhar Meghwal, PhD, is a distinguished researcher, engineer, teacher, and professor at the Food Technology Division at the Centre for Emerging Technologies, Jain Global Campus, at Jain University, in Bangalore, India.

Dr. Meghwal is working on developing inexpensive, disposable, and biodegradable food containers using agricultural wastes; quality improvement, quality attribute optimization, and freeze-drying of milk. At present, he is doing research and acting as course coordinator for MTech (food tech) courses as well as teaching at the Food Technology Division at Jain University Bangalore, India.

He has several books and many research papers, and he is a reviewer and an editorial board member of several journals. He has attended many national and international seminars and conferences.

Dr. Meghwal received his BTech degree (Agricultural Engineering) in 2008 from the College of Agricultural Engineering Bapatla, Acharya N. G. Ranga Agricultural University, Hyderabad, India. He received his MTech degree (Dairy and Food Engineering) in 2010 from the Indian Institute of Technology Kharagpur, West Bengal, India; and his PhD degree (food process engineering) from the same institute. He worked as research associate at INDUS Kolkata, (a rice parboiling, milling, and processing company) in the eastern part of the India on the development of a quicker and industrial-level parboiling system for paddy and rice milling.

Megh R. Goyal, PhD, PE, is a Retired Professor in Agricultural and Biomedical Engineering from the General Engineering Department in the College of Engineering at University of Puerto Rico—Mayaguez Campus; and Senior Acquisitions Editor and Senior Technical Editor-in-Chief in Agriculture and Biomedical Engineering for Apple Academic Press Inc. He has worked as a Soil Conservation Inspector and as a Research Assistant at Haryana Agricultural University and Ohio State University. He was the first agricultural engineer to receive the professional license in Agricultural Engineering in 1986 from the College of Engineers and Surveyors of Puerto Rico. On September 16, 2005, he was proclaimed as "Father of Irrigation Engineering in Puerto Rico for the twentieth century" by the ASABE, Puerto Rico Section, for his pioneering work on micro irrigation, evapotranspiration, agroclimatology, and soil and water engineering. During his professional career of 45 years, he has received many prestigious awards. A prolific author and editor, he has written more than 200 journal articles and textbooks and has edited over 25 books. He received his BSc degree in engineering from Punjab Agricultural University, Ludhiana, India; his MSc and PhD degrees from Ohio State University, Columbus; and his Master of Divinity degree from Puerto Rico Evangelical Seminary, Hato Rey, Puerto Rico, USA.

Mital J. Kaneria, PhD, is presently working as Assistant Professor in the Department of Biosciences, Saurashtra University, Rajkot, India. He formerly worked as a research associate at GUIDE (Gujarat Institute of Desert Ecology), Bhuj-Kachchh, India, in the terrestrial ecology division on the study of floral diversity, mangrove monitoring, herbarium preparation, and soil-water analytical parameters. He has published more than 40 research papers in national and international journals and has also written book chapters and books. He is a reviewer and editorial board member of many journals, has attended and presented several papers in several national and international seminars and conferences, and has received best paper awards. His current research involves isolation and characterization of bioactive phyto-constituents focused on *in vitro* and *in vivo* antimicrobial, antioxidant, and pharmacological activities of medicinal plants, particularly in relation to safety profiling, ageing, and various acute and chronic diseases and disorders.

Dr. Kaneria received his BSc degree in botany from M.D. Science College, Porbandar, Saurashtra University, Gujarat, India, and his MSc degree in botany from the Department of Biosciences, Saurashtra University, Rajkot, Gujarat, India. He earned his PhD degree in botany under the guidance of Prof. Sumitra Chanda, from the same Institute. During his PhD training, he was awarded a BSR Fellowship from UGC, New Delhi, India, for three years. His doctoral research is based on the phytochemical and pharmacological potency of a selected medicinal plant from Gujarat region.

Use promo code

APP12 for a

15% discount & free

standard shipping

(online orders only)

Order your copy of **Food Technology** today.

Save 15% when you order online and enter promo code APP12.

FREE standard shipping when you order online only.

TO ORDER ONLINE: Go to <http://www.appleacademicpress.com/title.php?id=9781771885096>.

In the U.S., Canada, Central & South America:
Tel: 800-272-7737
Fax: 800-374-3401
E-mail: orders@crcpress.com

In East and South-East Asia:
Tel: 65 6741 5166
Fax: 65 6742 9356
E-mail: sales@tandf.com.sg

In the United Kingdom:
Tel: +44 (0) 1235 400524
Fax: +44 (0) 1235 400525
E-mail: book.orders@tandf.co.uk

In the Rest of The World:
Tel: +44 (0) 1235 400524
Fax: +44 (0) 1235 400525
E-mail: book.orders@tandf.co.uk

published by
AAP APPLE
ACADEMIC
PRESS

To pay in Indian rupees, send your inquiry with the
promo code AAP12 for discount of 15% off list price via
email to : marketing@tandfindia.com or inquiry@tandfindia.com

distributed by
CRC CRC Press
Taylor & Francis Group