

Sustainable Food Technology

rsc.li/susfoodtech

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2753-8095 CODEN SFTUAG 2(3) 487–850 (2024)



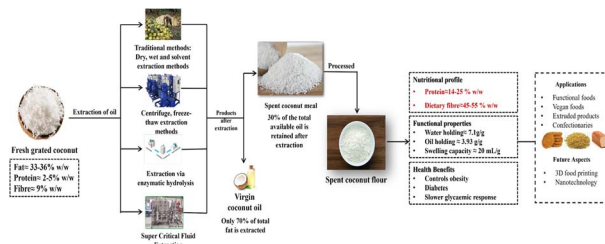
Cover
See P. Nisha *et al.*,
pp. 497–505. Image
reproduced by permission of
P. Nisha from *Sustainable
Food Technol.*, 2024, 2, 497.

REVIEWS

497

Unlocking a nutritional treasure: health benefits and sustainable applications of spent coconut meal

Heeba Shakeela, Kavya Mohan and Nisha P*



506

Potential of Brazilian berries in developing innovative, healthy, and sustainable food products

Nayara Macêdo Peixoto Araujo,* Paulo Berni, Lais Ramalho Zandoná, Nataly Maria Viva de Toledo, Paula Porrelli Moreira da Silva, Angélica Aparecida de Toledo and Mário Roberto Maróstica Junior



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit [rsc.li/cpd-training](https://www.rsc.li/cpd-training)

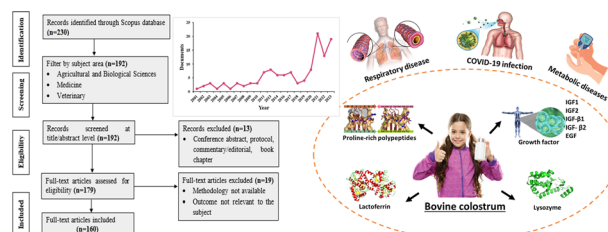


**SAVE
10%**

531

Bovine colostrum as a promising nutraceutical: a systematic review

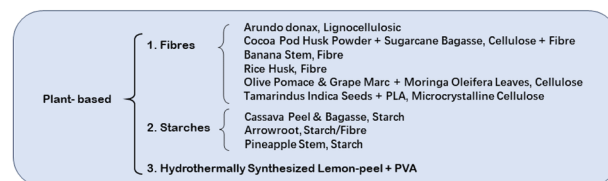
Akshay Ramani, Sathiya Taherabbas and Subhadip Manik*



548

Transitioning of petroleum-based plastic food packaging to sustainable bio-based alternatives

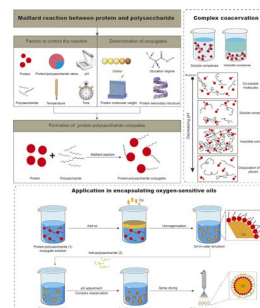
Yue Yin and Meng Wai Woo*



567

Modification of plant and algal proteins through the Maillard reaction and complex coacervation: mechanisms, characteristics, and applications in encapsulating oxygen-sensitive oils

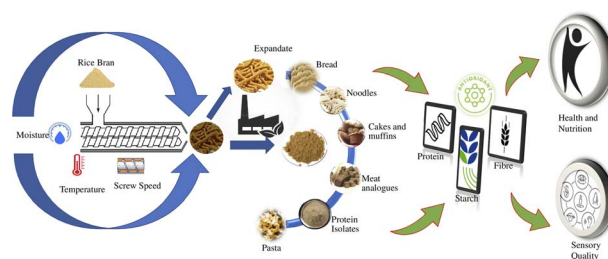
Zijia Zhang,* Bo Wang, Jie Chen and Benu Adhikari*



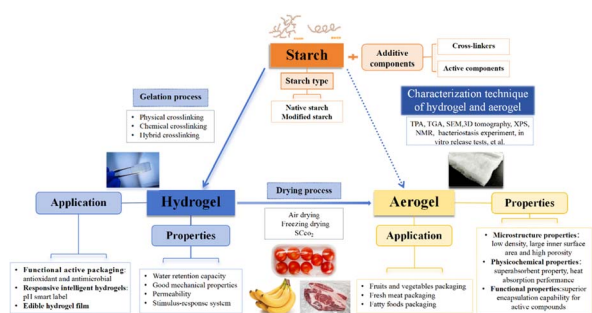
594

Unlocking the potential of rice bran through extrusion: a systematic review

Yadav KC, Jaquie Mitchell, Bhesh Bhandari and Sangeeta Prakash*



615



Recent advances in the fabrication, characterization and application of starch-based materials for active food packaging: hydrogels and aerogels

Di Zhao, Xinyi Zhang, Yingying Zhang, Enbo Xu, Shengkun Yan, Huaide Xu and Mei Li*

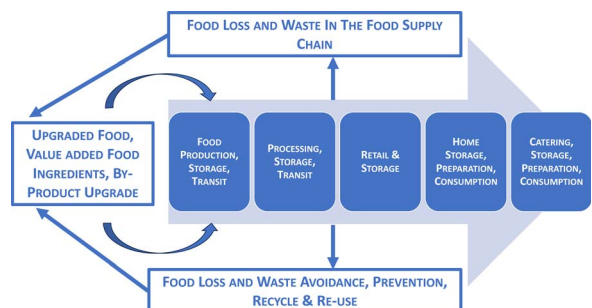
635



Tiger nut (*Cyperus esculentus*) starch: extraction, composition, structure, properties, modification and uses

Yuchen Wu, Qihui Mao, Guohua Zhao and Fayin Ye*

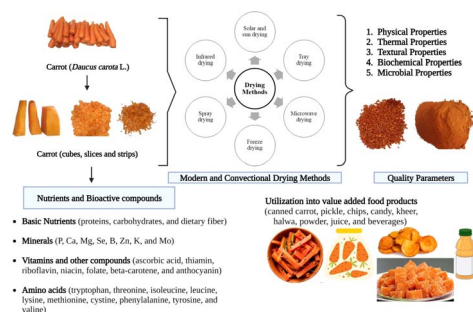
652



From kitchen scraps to delicacies to food waste

Dietrich Knorr* and Mary Ann Augustin

667



A comprehensive review on carrot (*Daucus carota* L.): the effect of different drying methods on nutritional properties and its processing as value-added foods

Shivani Motegaonkar, Amar Shankar, Humeera Tazeen, Mahendra Gunjal* and Sachin Payanad

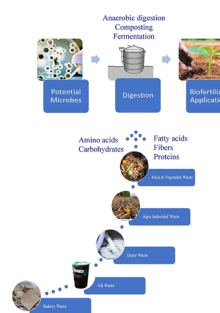


REVIEWS

689

Microbial bioconversion of food waste to bio-fertilizers

Pramod Kumar Mahish, Dakeshwar Kumar Verma,*
Anjali Ghritlahare, Charu Arora and Paz Otero*

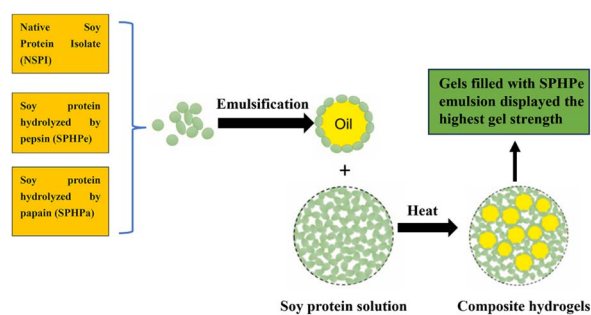


PAPERS

709

Soy protein hydrogels with filler emulsion particles coated by hydrolyzed protein

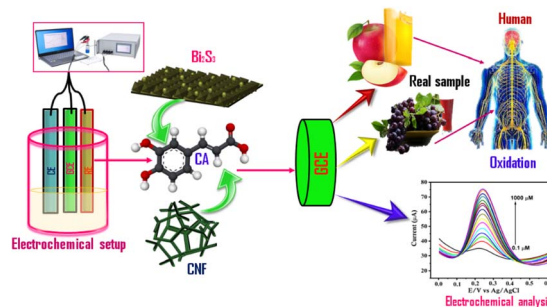
Guijiang Liang, Wenpu Chen, Maomao Zeng, Zhiyong He,
Jie Chen* and Zhaojun Wang*



717

Rapid detection of caffeic acid in food beverages using a non-enzymatic electrochemical sensor based on a Bi₂S₃/CNF nanocomposite

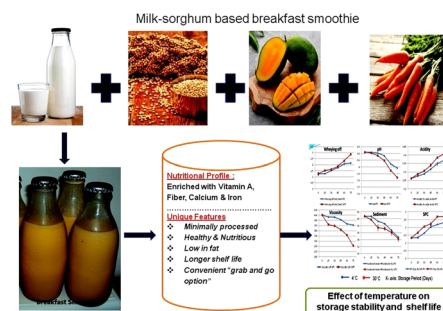
Balaji Parasuraman, SathishKumar Chinnapayan,
Hariprasath Rangaraju, Shanmugam Paramasivam,
Sambasivam Sangaraju, Pazhanivel Thangavelu*
and Chi-Hsien Huang*



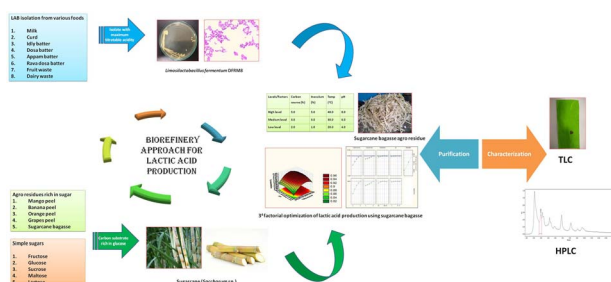
729

Storage stability, nutritional profiling and consumer acceptability of a milk-sorghum-based breakfast smoothie

Rekha Rani,* Latha Sabikhi and Sathish Kumar M. H.



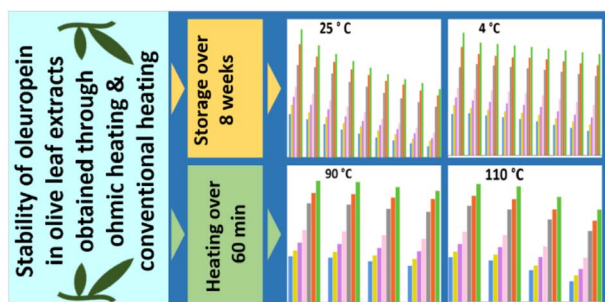
741



Optimisation of lactic acid production using cost effective agro residue for food applications

Janifer Raj Xavier,* Ilaiyaraja Nallamuthu, Muthiah Pal Murugan and Om Prakash Chauhan

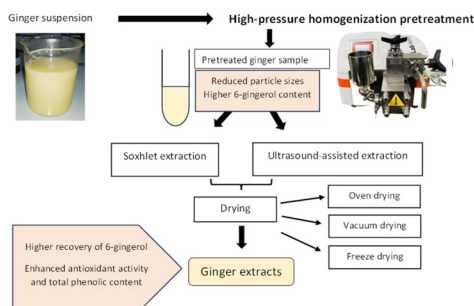
750



Effect of storage, temperature, and pH on the preservation of the oleuropein content of olive leaf extracts

Fereshteh Safarzadeh Markhali* and José A. Teixeira

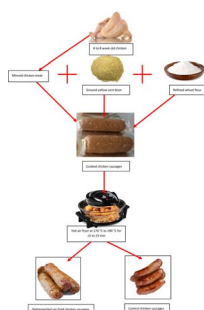
760



Evaluation of high-pressure homogenization as a pretreatment for the extraction and drying of 6-gingerol from ginger

Ginithillawala Arachchilage Dilukshi Vichakshana, Su Chern Foo and Wee Sim Choo*

769



Response surface methodology for the optimization of process parameters during hot-air frying of chicken sausages incorporated with corn bran

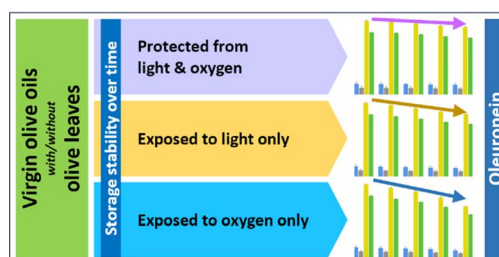
Akinlade Florence Adeola, Sobukola Olajide Philip,* Adebowale Abdul-Razaq Adesola, Bakare Henry Adegoke and Omidiran Adebukola Tolulope



780

Stability of target polyphenols of leaf-added virgin olive oil under different storage conditions over time

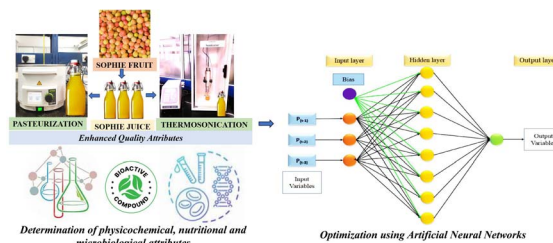
Fereshteh Safarzadeh Markhali* and José A. Teixeira



790

Computational modeling for the enhancement of thermosonicated Sophie (*Myrica esculenta*) fruit juice quality using artificial neural networks (ANN) coupled with a genetic algorithm

Puja Das, Prakash Kumar Nayak and Radha Krishnan Kesavan*

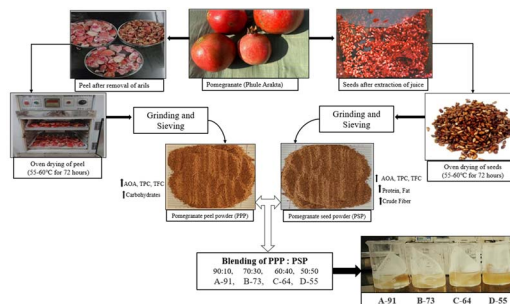


- Sophie fruits are antioxidant-rich, guarding against oxidative stress and reducing chronic disease risk.
- Optimization of TS parameters using ANN maximized the yield and bioactive compounds
- TS is promising for large-scale Sophie fruit juice extraction, enhancing market competitiveness

806

Process characterization for tisane development using pomegranate waste: an herbal drink optimization strategy

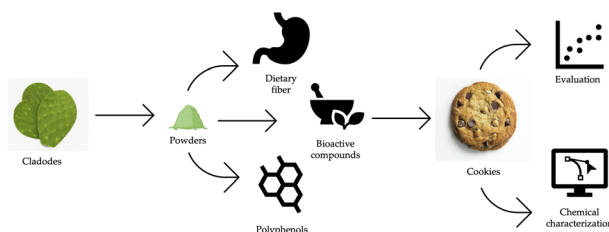
Aastha Dewan, Sanya Dawra, Nita Kaushik, Ajay Singh, Sheetal Thakur,* Sandeep Kaur and Janifer Raj Xavier



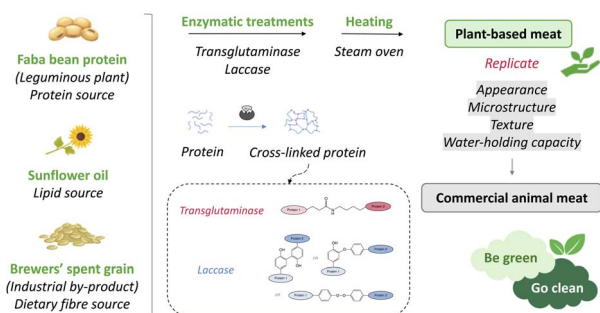
816

Cladodes of *Opuntia ficus indica* as a functional ingredient in the production of cookies: physical, antioxidant and sensory properties

Rocío Aparicio-Ortuño, Oscar Jiménez-González, J. Daniel Lozada-Ramírez and Ana E. Ortega-Regules*



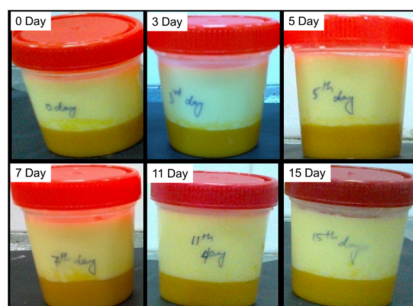
826



Enhancement of the texture and microstructure of faba bean-based meat analogues with brewers' spent grain through enzymatic treatments

Yue Fan, Shiyu Zheng, Pratheep K. Annamalai, Bhesh Bhandari and Sangeeta Prakash*

837



Optimization of water chestnut (*Trapa bispinosa*) starch, fructo-oligosaccharide and inulin concentrations for low-fat flavoured yogurt consisting of a probiotic *Lactobacillus rhamnosus* strain

Sangita Borah, Tridisha Kakoty, Pallab Kumar Borah, Nikhil Kumar Mahnot, Dibyakanta Seth, Falguni Patra and Raj Kumar Duary*

