# 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

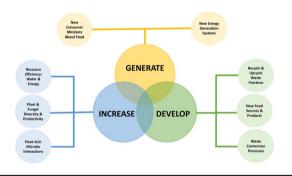
ISSN 2753-8095 CODEN SFTUAG 2(2) 245-486 (2024)



### **REVIEWS**

### The future of foods

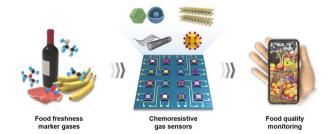
Dietrich Knorr\* and Mary Ann Augustin



266

# Food quality assessment using chemoresistive gas sensors: achievements and future perspectives

Seon Ju Park, Soo Min Lee, Mi-Hwa Oh,\* Yoon Suk Huh\* and Ho Won Jang\*





# 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

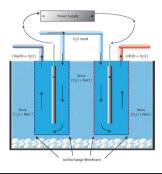
Visit rsc.li/cpd-training



### **REVIEWS**

# Application of electrolysed water in post-harvest treatment of fruits and vegetables

Juhi Saxena



### Antimicrobial activity and applications of fermentates from lactic acid bacteria - a review

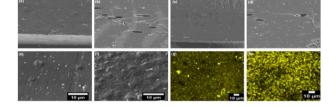
Ricardo H. Hernández Figueroa, Aurelio López-Malo and Emma Mani-López\*



### 307

### Starch-based edible packaging: rheological, thermal, mechanical, microstructural, and barrier properties a review

Ravichandran Santhosh, Jasim Ahmed,\* Rahul Thakur and Preetam Sarkar



### 331

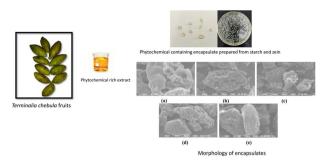
### Current insights into date by-product valorization for sustainable food industries and technology

Athira Jayasree Subhash, Gafar Babatunde Bamigbade and Mutamed Ayyash\*



### COMMUNICATION

362

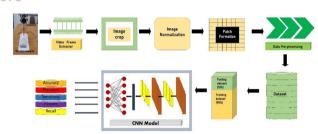


Encapsulation of bioactive compounds extracted from haritaki pulp (Terminalia chebula Retzius): characterization of physical, thermal, and morphological properties

Avinash Kumar Jha and Nandan Sit\*

### **PAPERS**

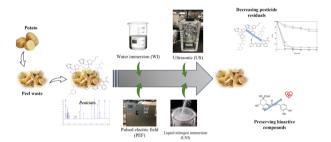
373



# Al and CV based 2D-CNN algorithm: botanical authentication of Indian honey

Dilpreet Singh Brar,\* Ashwani Kumar Aggarwal, Vikas Nanda, Sudhanshu Saxena and Satyendra Gautam

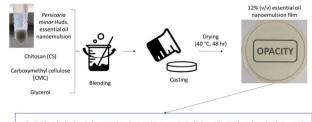
386



Converting potato peel waste into bioactive extracts: reduction of pesticides by traditional and novel pretreatment technologies

Thanh-Tri Nguyen,\* Carmen Rosselló, Sergey Mikhaylin and Cristina Ratti

400



- demonstrated by the CMC-CS composite film with 12% (v/v) of  $\it P. minor$  essential oil nanoemulsion
- Potential to be used as a bioactive packaging film for food products

Development of carboxymethyl cellulose-chitosan based antibacterial films incorporating a Persicaria minor Huds, essential oil nanoemulsion

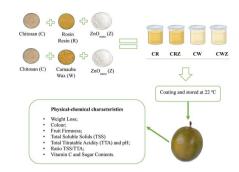
Yu-Hsuan How, Emily Min-Yan Lim, lanne Kong, Phei-Er Kee and Liew-Phing Pui\*

### **PAPERS**

### 415

# Application of rosin resin and zinc oxide nanocomposites to chitosan coatings for extending the shelf life of passion fruits

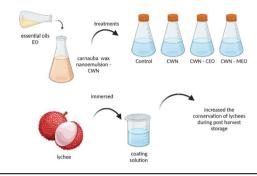
Jailton Ribeiro dos Santos Junior, Luiz Carlos Corrêa-Filho, Vitória Oliveira Pereira, Henriqueta Talita Guimarães Barboza, José Carlos Sá Ferreira, Antônio Gomes Soares, Renata Valeriano Tonon and Lourdes Maria Corrêa Cabral\*



### 426

Effect of carnauba wax nanoemulsion associated with Syzygium aromaticum and Mentha piperita essential oils as an alternative to extend lychee postharvest shelf life

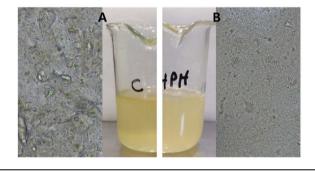
Conny W. T. Fukuyama, Larissa G. R. Duarte,\* Isadora C. Pedrino, Milene C. Mitsuyuki, Stanislau Bogusz Junior and Marcos D. Ferreira



### 437

Effect of processing Verdejo grape must by UHPH using non-Saccharomyces yeasts in the absence of SO<sub>2</sub>

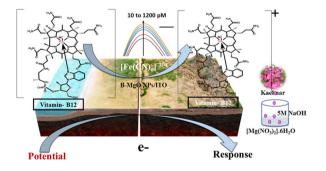
Carlos Escott, Cristian Vaquero, Juan Manuel del Fresno, Angelo Topo, Piergiorgio Comuzzo, Carmen Gonzalez and Antonio Morata\*



### 447

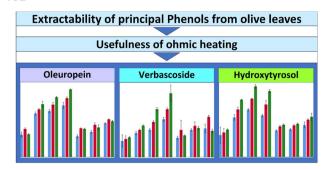
Biogenic-magnesium oxide nanoparticles from Bauhinia variegata (Kachnar) flower extract: a sustainable electrochemical approach for vitamin-B<sub>12</sub> determination in real fruit juice and milk

Sarita Shaktawat, Rahul Verma, Kshitij RB Singh and Jay Singh\*



### **PAPERS**

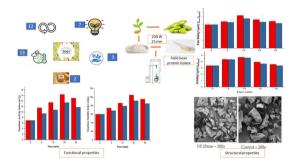
461



Extractability of oleuropein, hydroxytyrosol, tyrosol, verbascoside and flavonoid-derivatives from olive leaves using ohmic heating (a green process for value addition)

Fereshteh Safarzadeh Markhali\* and José A. Teixeira

470



Modifications of physicochemical, functional, structural, and nutritional properties of a field bean protein isolate obtained using batch and continuous ultrasound systems

Bhakti Anand Narale, Addanki Mounika and Akalya Shanmugam\*