

# Sustainable Food Technology

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ISSN 2753-8095 CODEN SFTUAG 3(6) 1651–2354 (2025)



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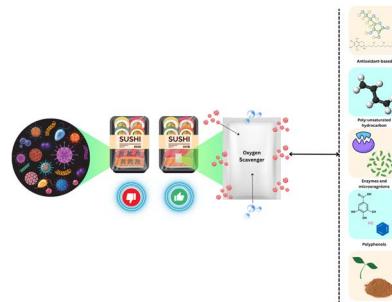
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### Non-iron oxygen scavengers in food packaging: mechanisms, applications, and the shift towards green alternatives

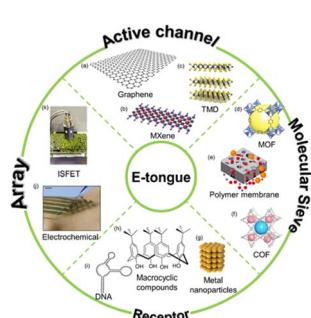
Prachi Jain, Bhushan P. Meshram, Suman Singh and Kirtiraj K. Gaikwad\*



1681

### Electronic tongue: active channels, molecular sieves, receptors and arrays

Hyuk Jin Kim, Jun Uh Hyun and Ho Won Jang\*



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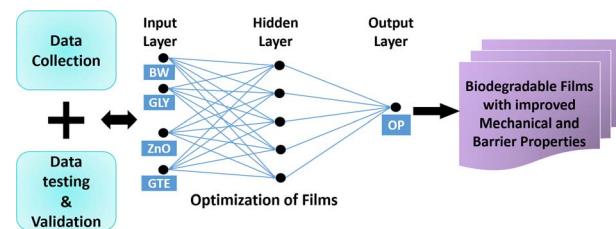
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## REVIEWS

1705

**Machine-learning driven design of bio-based active food packaging films with improved mechanical properties**

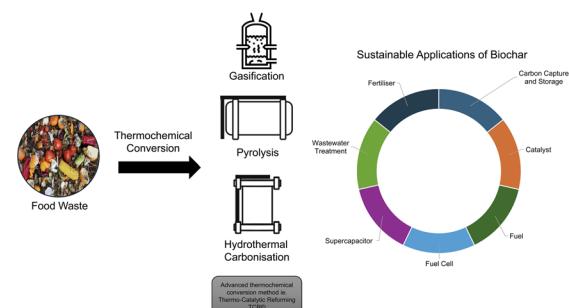
Sanjeev Gautam,\* Monika Verma and Tarundeep Singh Lakhpal



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**Sustainable food waste management: a critical review on biochar production and applications**

J. S. Sudarsan, M. Goel, H. Jahangiri, P. R. Rout, M. Tavakolian, C. Briggs, Macsen Haynes-Parry, A. Asthana, R. LakshmiPathy, S. V. Prabhu and S. Nithiyanantham\*



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**Artisanal production of semolina: an agro-industrial prospect for the reduction of post-harvest losses of roots, tubers, and plantains in sub-Saharan Africa**

Mundéné-Timothée Junior Lawrence, Veeranna Hitlamani, Nouga Bissoué Achille, Aashitosh A. Inamdar,\* Mouangue Ruben and Njintang Yanou Nicolas

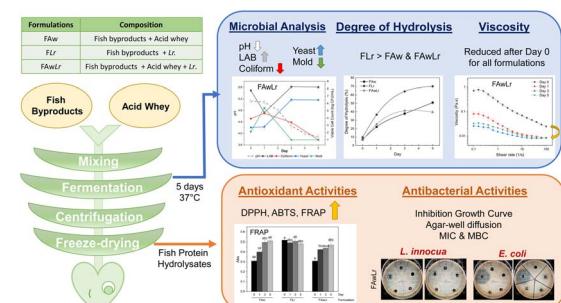


## PAPERS

1766

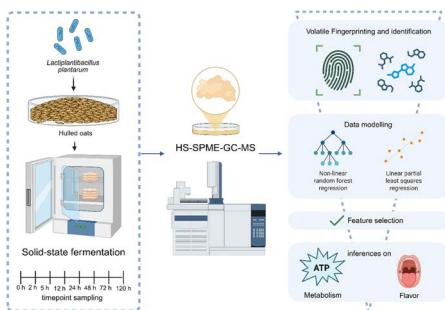
**Sustainable valorization of fish byproducts and acid whey through lactic acid bacteria fermentation into bioactive hydrolysates**

Chih-Chun Kuo, Da Chen, Rafael Jiménez-Flores, Macdonald Wick and Osvaldo Campanella\*



## PAPERS

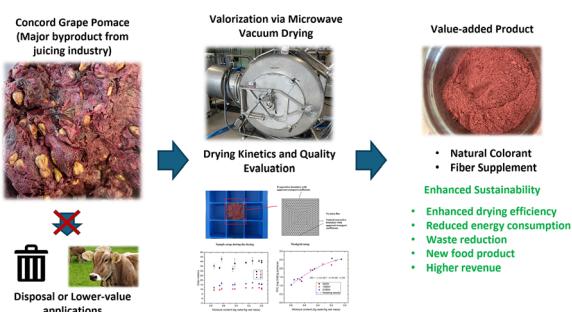
1781



## Dynamic volatile insights of solid-state fermented oats with *Lactiplantibacillus plantarum*: a future food sustainable development strategy

Stella Green, Graham T. Eyres, Dominic Agyei, Nicholas Horlacher, Elisa Di Stefano and Biniam Kebede\*

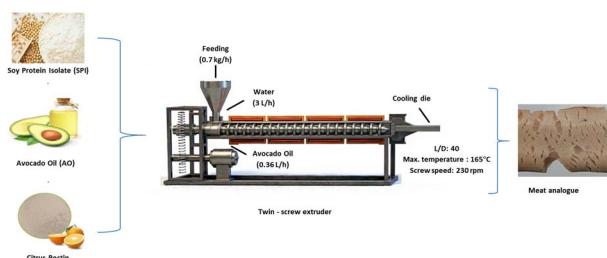
1793



## Microwave vacuum drying of Concord grape (*Vitis labrusca*) pomace: drying kinetics and quality attributes for enhanced valorization

Viral Shukla, Olga I. Padilla-Zakour and Chang Chen\*

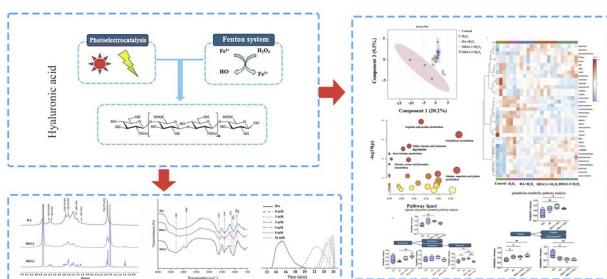
1805



## Effects of pectin and avocado oil in the production of meat analogues obtained by high moisture extrusion and their physicochemical characterization

Darianna Ur-Mora, Oscar Hernández-Meléndez and Eduardo Bárzana\*

1816



## Low-molecular-weight hyaluronic acid prepared through photoelectric-Fenton reaction protects Caco-2 cells from oxidative damage by regulating metabolites

Jiayi Yan, Youxian Zhou, Chen Song, Yunning Yang, Fanhua Kong, Jingfeng Yang and Shuang Song\*

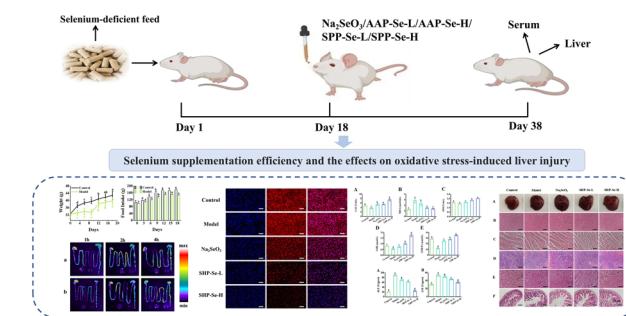


## PAPERS

1830

## Selenium supplementation effect of selenium-chelating peptide from sturgeon (*Acipenseridae*) heads and prevention of liver injury in selenium-deficient mice

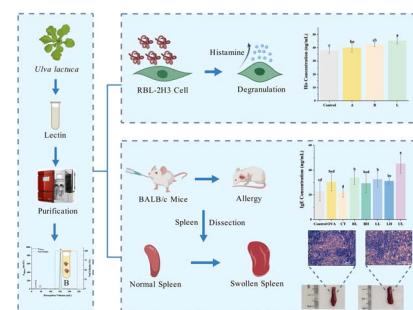
Jiao Jia, Yinan Du, Zhiqiang Lu, Qing Liu and Wenfei Wu\*



1841

## Molecular properties and allergenicity of lectin from *Ulva lactuca*

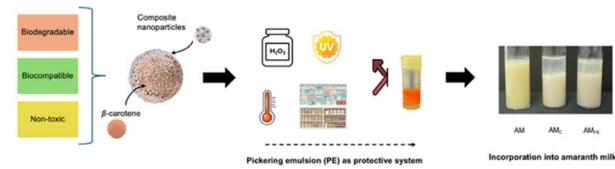
Zhicong Wang, Yingying Zhou, Lihang Chen, Tao Chen, Yuying Wang, Shanshan Ding, Yinan Du, Jiangning Hu\* and Di Wu\*



1853

## Pickering emulsion stabilized by biocomposite nanoparticles as a protective system for $\beta$ -carotene

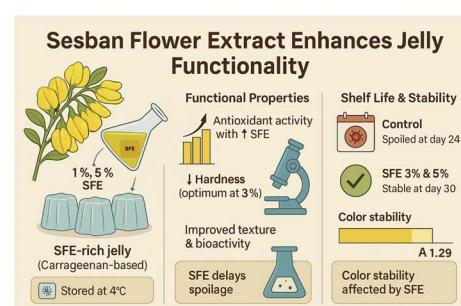
Guadalupe Johanna Góngora-Chi, Luis Quihui-Cota, Yolanda Leticia López-Franco, Marco Antonio López-Mata, Karla Guadalupe Martínez-Robinson, Orlando Tortoledo-Ortiz and Jaime Lizardi-Mendoza\*



1865

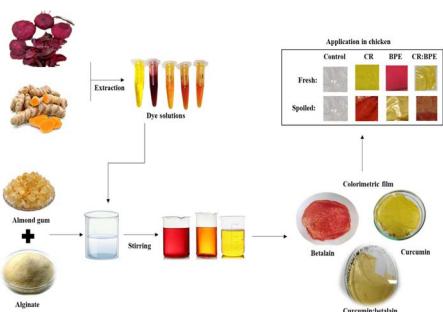
## Sesban flower extract as a natural functional ingredient: effects on texture, antioxidant activity, and shelf-life stability of jelly formulation

Sochanet Chheng, Saeid Jafari, Dharmendra Mishra and Kitipong Assatarakul\*



## PAPERS

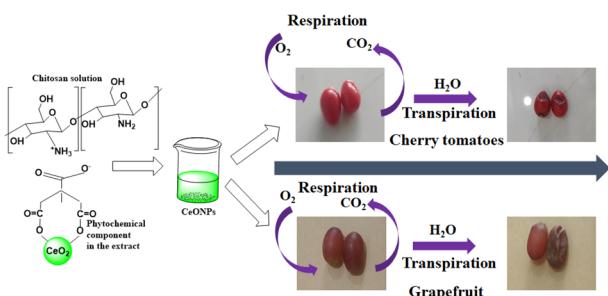
1880



## Betacyanin–curcumin smart films for detecting fresh chicken quality in real time

Aswini Thiagarajan, Naveen Subramaniyam, Vinodhini Thiagarajan, Charumathi Pushparaj, Sabariswaran Kandasamy, Selvakesavan Rajendran K and Ramesh Subramani\*

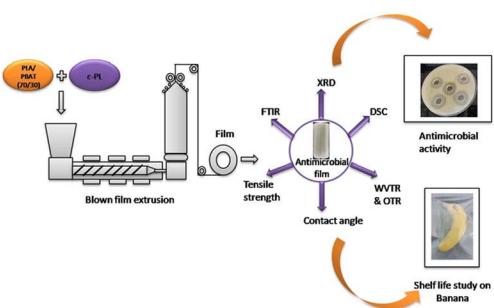
1890



## Endophytic fungi-assisted synthesis of chitosan-based cerium oxide nanoparticles for the preservation of postharvest fruits

Bridget Kpomah, Onome Ejeromedoghene,\* Abiodun Oladipo, Victor Enwemiwe, Muritala Olusola and Sheriff Adewuyi

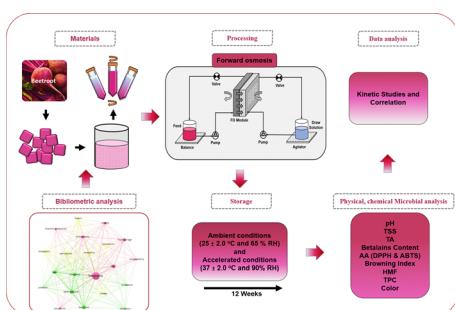
1901



## Sustainable antimicrobial packaging films: effectiveness of epsilon-poly-L-lysine in PLA/PBAT blend films

Pullarkad Bharathan Smrithy, Johnsy George,\* Aksalamol Pallivathukkal Raju, Muhammed Riyaz Guthige, Gowdahalli Mantelingachar Chandrika, Venugopal Vasudevan, Radhika Madan Urs and Ranganathan Kumar

1916



## Effect of storage conditions on quality, microbial stability, and shelf-life kinetics of beetroot juice concentrate

Das Trishitman\*

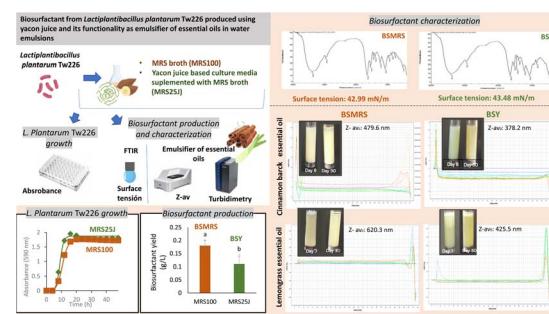


## PAPERS

1927

**Biosurfactant from *Lactiplantibacillus plantarum* Tw226 produced using yacon juice and its functionality as emulsifier of essential oils in water emulsions**

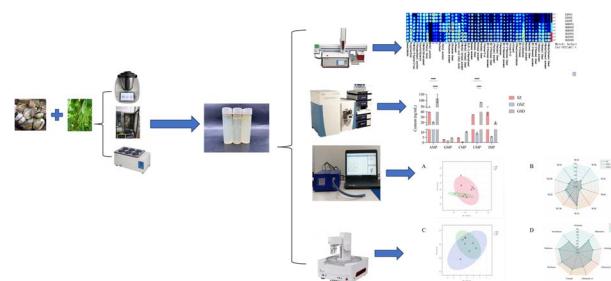
Virginia M. Lara,\* Marisol Vallejo, Marcelo Soria, María F. Gliemmo and Carmen A. Campos



1936

**Effect of different thermal processing methods on the edible quality and flavor profile of kidney bean and clam soup**

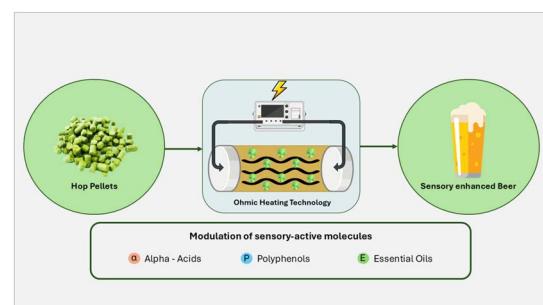
Jing Li, Xiaoqing Miao, Yan Liu and Pengfei Jiang\*



1948

**Powering up brewing: ohmic heating's effect on the extraction of key sensory compounds from hop pellets**

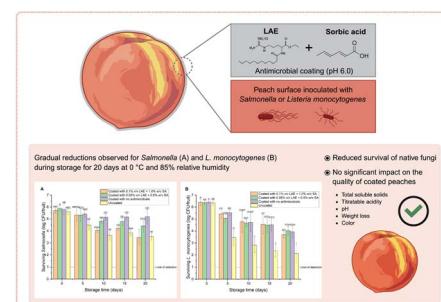
Gonçalo Carvalho,\* Eduardo Coelho, Rui M. Rodrigues, António A. Vicente and Ricardo Nuno Pereira



1960

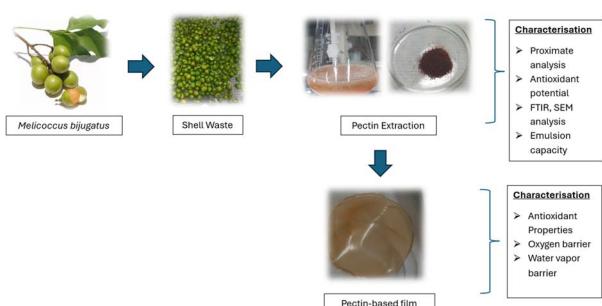
**Effects of supplementing lauric arginate and sorbic acid in a commercial coating on pathogen survival and quality of fresh peaches**

Fatima Reyes-Jurado, Kriza Faye Calumba, Thomas G. Denes and Qixin Zhong\*



## PAPERS

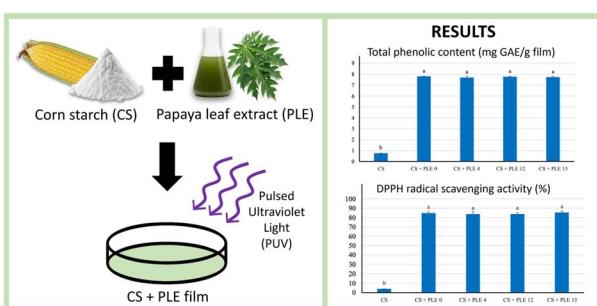
1972



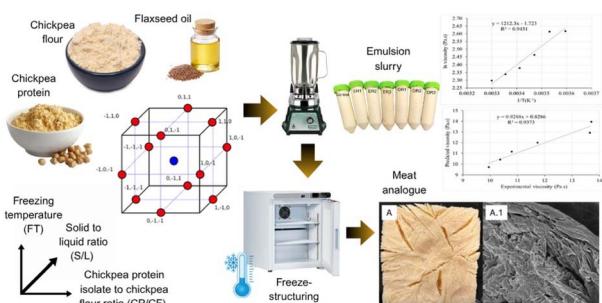
### Valorization of Spanish lime (*Melicoccus bijugatus*) shell waste: optimized pectin recovery and preliminary evaluation in edible film formation

Che John\* and Rohanie Maharaj

1986



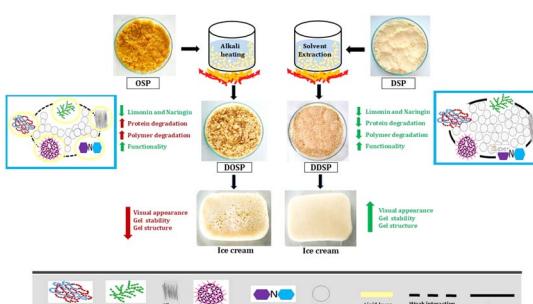
1996



### Physical and functional properties of pulsed-ultraviolet treated starch based films with papaya leaf extract

T. Yin Feng, M. I. Nur Hidayah, F. Han Lyn and Z. A. Nur Hanani\*

2009



### Developing a chickpea protein–flaxseed oil emulsion gel meat analogue using the freeze-alignment technique

Tharindu Trishan Dapana Durage,\* Anand Kumar, Chien-I. Hsu, Kaushalya Wickramasinghe, Swapnil Ganesh Jaiswal, Rakesh Kumar Gupta\* and Prem Prakash Srivastav

### Debittered pomelo (*Citrus maxima*) seed powder as a functional ingredient in low-fat ice cream

Sayantan Chakraborty, Gunjana Deka, Jinku Bora and Himjyoti Dutta\*

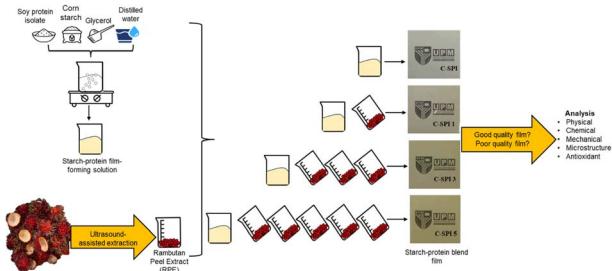


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2032

## Active food packaging development: rambutan (*Nephelium lappaceum* L.) peel extract incorporated into starch-protein blend films

T. Nurul Azlin, F. Han Lyn and Z. A. Nur Hanani\*



2041

## Pumpkin seed flour (a cold-pressed by-product): characterization and rheological assessment in gluten-free bread premixes

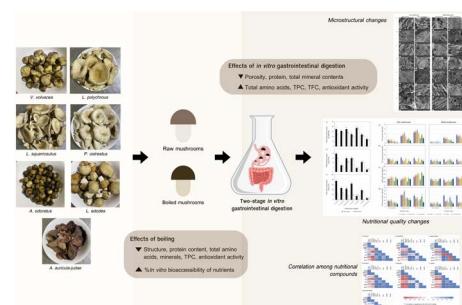
Juan José Burbano,\* Manuel Rojas, Marina Fernández Bravo, Julio Vidaurre-Ruiz, Ritva Repo Carrasco Valencia and María Jimena Correa\*



2052

## Sustainable nutrient enhancement of edible mushrooms via boiling and gastrointestinal simulation

Si Qin, Sunantha Kettawala and Nattaya Konsue\*



2066

## Transformation of pomegranate (*Punica granatum* (L.)) leaf waste into a functional beverage and its phytochemical and antioxidant properties

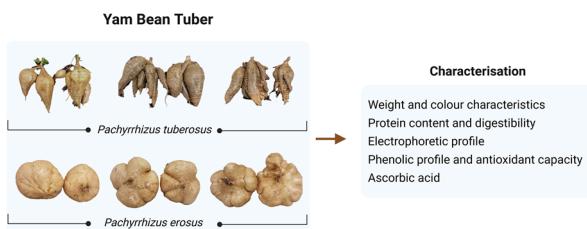
Nellampitiya Gamage Shehan Vimukthi, Rathnayake Mudiyanselage Dharmadasa,\* Rasika Warnasooriya and Upeshka Medawatta



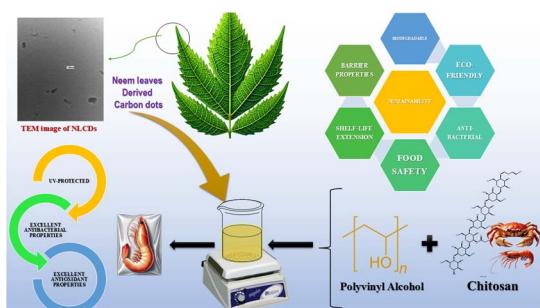
## PAPERS

2074

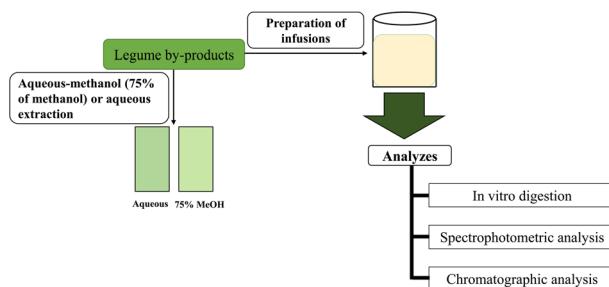
## Bioactives &amp; Protein Characteristics in Yam Bean Genotypes



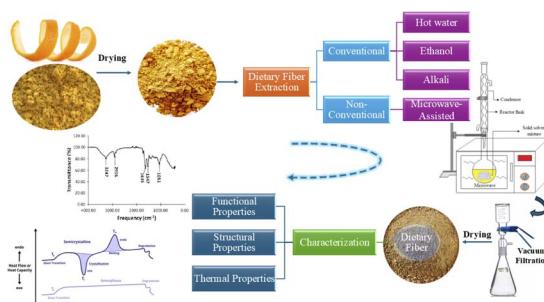
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## Comparative analysis of bioactives and protein characteristics in six genotypes of yam bean tubers

Rewati Raman Bhattacharai,\* Geethu Sulochana, Riddhiben Ghanshyambhai Maheta, Anita Severn-Ellis, Kalidas Pati, N. U. Sruthi, Amboge Samson and Stuart Johnson

## Neem leaf-derived carbon dot-embedded chitosan-based active films: a sustainable approach to prolong the shelf life of prawns

Ajithkumar Appaya Hunashyal, Saraswati P. Masti,\* Lingaraj Kariyappa Kurabetta, Manjushree Nagaraj Gunaki, Suhasini Madihalli, Jennifer P. Pinto, Manjunath B. Megalamani, Bothe Thokchom, Ramesh Babu Yarajarla and Ravindra B. Chougale

## Valorization of legume by-products in functional formulations: phytochemicals and their simulated gastrointestinal fate

Gulay Ozkan, Mustafa Tahsin Yilmaz, Elwira Sieniawska, Benita Hryć, Mehmet Çağlar Tülbek and Esra Capanoglu\*

## Microwave-assisted extraction of dietary fiber from kinnow mandarin by-products: impact on yield and functional, structural, and thermal properties

Samandeep Kaur,\* Vikrant Singh, Parmjit S. Panesar\* and Harish K. Chopra

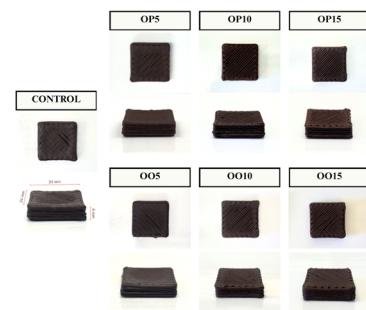


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## Omega-3 incorporation effects on the structural, rheological, and sensory properties of 3D-printed chocolate

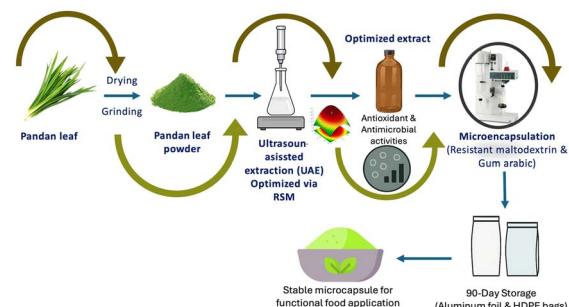
Ruoyao Li, Sushil Koirala, Sangeeta Prakash, Yun Xu and Bhesh Bhandari\*



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## Sustainable production of bioactive pandan leaf extract microcapsules via optimized ultrasound-assisted extraction and spray drying

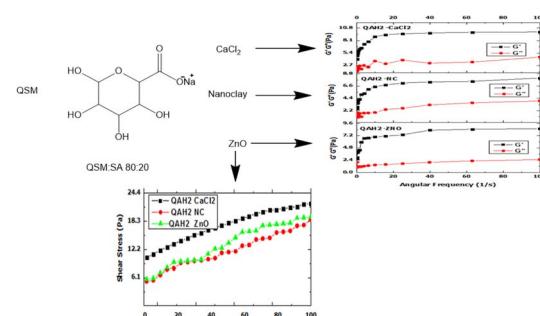
Nilar Oo, Saeid Jafari, Saranya Jansamut and Kitipong Assatarakul\*



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## Probing sustainable cross-linked quince seed mucilage–sodium alginate biocomposite hydrogels through the development of biodegradable films

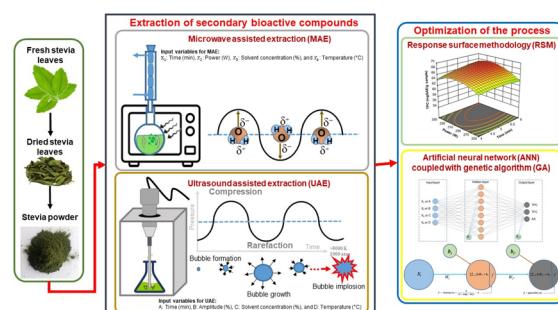
Sabreena Yousuf, Nusrat Jan, Nadira Anjum, B. N. Dar, J. A. Rather and Shrikant S. Maktedar\*



2170

## Comparative evaluation and optimization of microwave and ultrasound assisted extraction of stevia secondary bioactive compounds using RSM and ANN-GA approaches

Prakash Kumar and Punyadarshini Punam Tripathy\*



## PAPERS

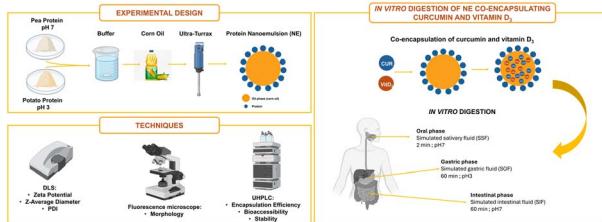
2192



## Extraction and characterization of chickpea protein isolate and its application in the development of a plant-based frozen dessert

Muhammed Arshad P., Neha Sharma\* and Maanas Sharma\*

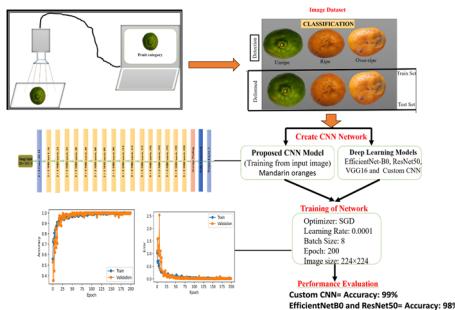
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## Co-encapsulation of vitamin D<sub>3</sub> and curcumin in plant protein-based nanoemulsions: formulation optimization, characterization, and *in vitro* digestion

Márcia Marques, Raquel F. S. Gonçalves, Daniel A. Madalena, Luís Abrunhosa, António A. Vicente and Ana C. Pinheiro\*

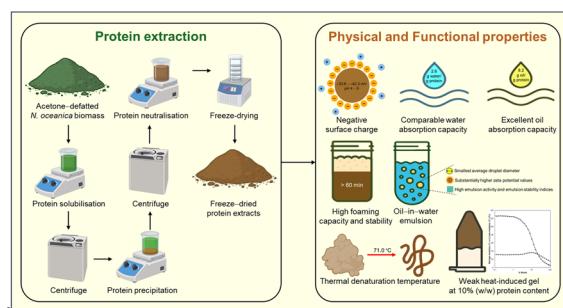
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## Deep learning-based approach for classifying mandarin orange maturity

Raj Singh, C. Nickhil,\* Konga Upendar, Poonam Mishra and Sankar Chandra Deka

2226



## Characterisation of water-soluble *Nannochloropsis oceanica* protein fractions: physical and functional properties

Thi Phuong Linh Le,\* Jayani Samarthunga, Katrina Strazdins,\* Jeroen Rens and Benu Adhikari\*

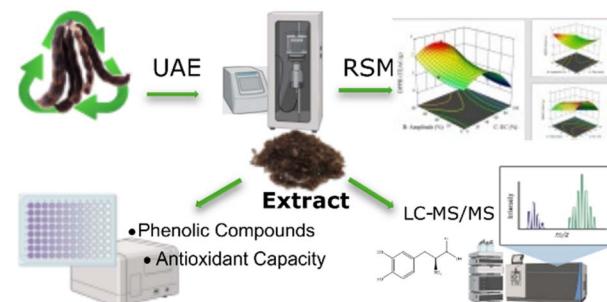


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## Optimization of ultrasound-assisted extraction of antioxidant compounds from *Mucuna pruriens* pods using response surface methodology: a waste-to-value approach

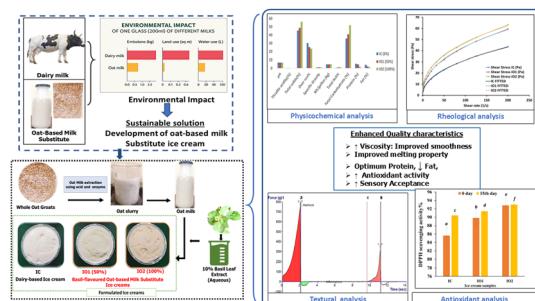
Beatriz I. Avalos, Belén A. Acevedo, Juan P. Melana Colavita, Romina Curbelo, Eduardo Dellacassa and Margarita M. Vallejos\*



2253

## Formulation and characterization of basil-flavoured oat-based milk substitute ice cream as a sustainable alternative to dairy ice cream

Deepika Shrestha, Alisha Pradhan, V. Sai Sharanya Palletti, R. B. Swethapriya and M. Sriyaya\*



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## Sustainable functional foods derived from indigenous resources: the utilization of tamarind seed, bael, and bamboo shoot powders as nutritional enhancers

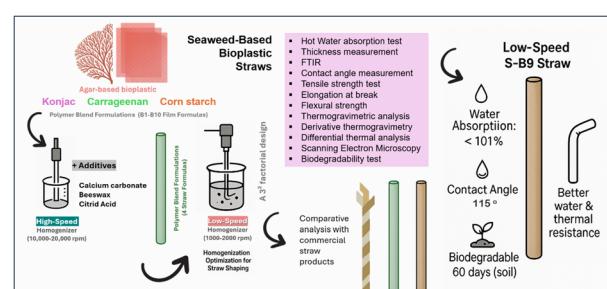
Midhun J, Muthamil Selvi K, Neethi Sri S, Tamminana Jeeviteswara Rao, Addanki Mounika and Akalya Shanmugam\*



2282

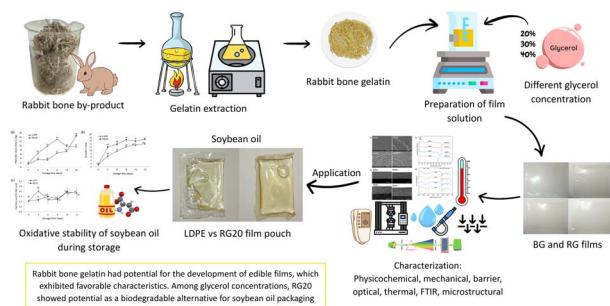
## Investigation of polymer blend formulation and homogenization dynamics in the development of biodegradable, hydrophobic, and heat-resistant seaweed-based bioplastic straws

Wahyu Ramadhan, Joko Santoso, Uju,\* Rahadiyan Garuda Langit Dewangga, Mario Natanael, Muhammad Aldy Luthfiansyah, Adinda Yulya Rachmawati and Zacky Arivai Santosa



## PAPERS

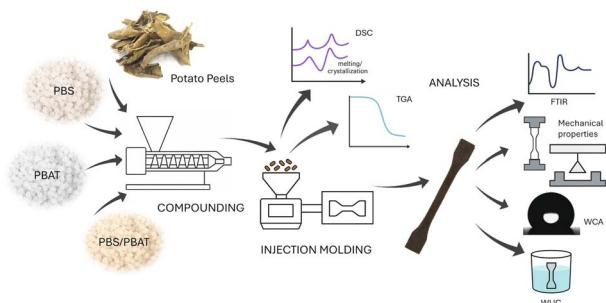
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## Rabbit bone gelatin edible films: impact of glycerol concentration on properties and application in soybean oil packaging

Siti Rima Pratiwi Putri, Dian Haryati, Umar Santoso, Andriati Ningrum, Ashri Nugrahini and Manikharda\*

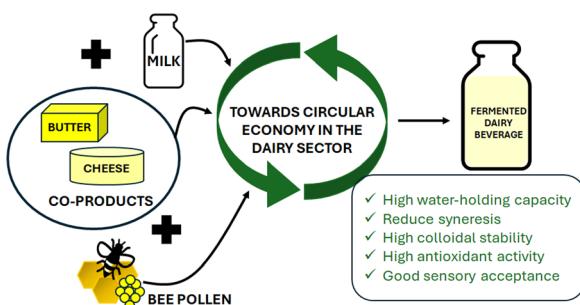
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## Potato peel-based PBS/PBAT biocomposites: influence of composition and filler content on injection molded properties

Susanna Miescher, Florine Schleiffer, Eliane Wegenstein and Selçuk Yıldırım\*

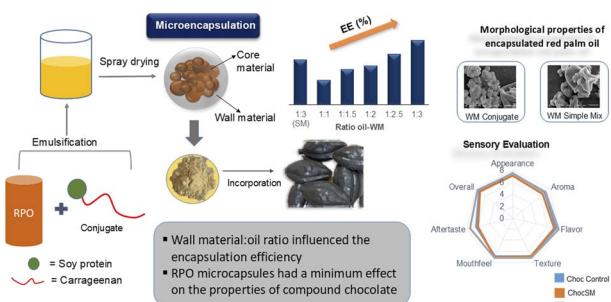
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## Sustainable development of dairy-based functional beverages enriched with bee pollen: a circular economy approach

Eliara Acipreste Hudson, Herlândia Cotrim Santos, Laís Fernanda Batista, Jaqueline de Paula Rezende, Kely de Paula Correa, Izabela Maria Montezano de Carvalho, Márcia Cristina Teixeira Ribeiro Vidigal and Ana Clarissa dos Santos Pires\*

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## Microencapsulation of red palm oil with soy protein concentrate–carrageenan conjugates for compound dark chocolate applications

Haida Setyani, Arima Diah Setiowati,\* Sri Rahayoe, Chusnul Hidayat and Arifin Dwi Saputro



## RETRACTION

2352

**Retraction: Protein complexations and amyloid fibrilization as novel approaches to improve technofunctionality of plant-based proteins**

Zakir Showkat Khan,\* Shubham Mandliya, Shweta Suri, Seerat Bhinder, Pintu Choudhary, Shreya Mandal, Narendra Kumar Chandla, Koyel Kar, Ömer Said Toker, Slim Smaoui, Mohmad Sayeed Bhat, Hari Niwas Mishra, Navdeep Singh Sodhi, Bhavnita Dhillon and Thameed Ajaz