

# Sustainable Food Technology

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ISSN 2753-8095 CODEN SFTUAG 3(4) 849–1236 (2025)



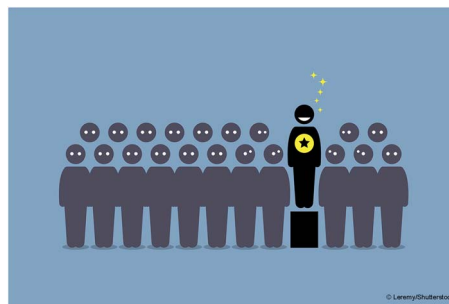
### Cover

See Peter R. Gracey and Elad Tako, pp. 861–874. Image reproduced by permission of Elad Tako from *Sustainable Food Technol.*, 2025, 3, 861.

## EDITORIAL

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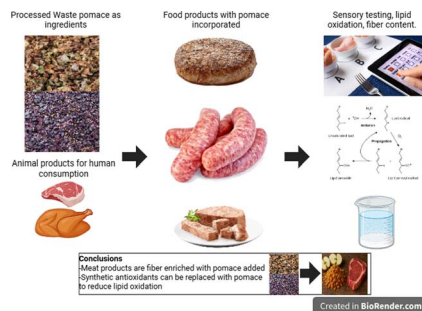


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### Apple and grape pomace: emerging upcycled functional ingredients in processed meat products, designed to increase polyphenol and fiber contents

Peter R. Gracey and Elad Tako\*



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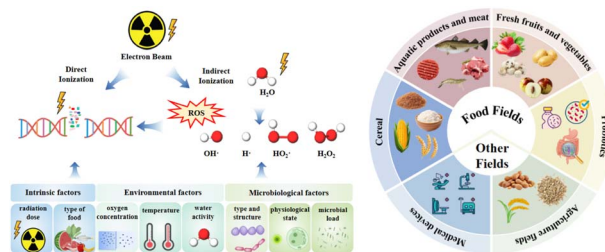


## REVIEWS

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## Electron beam irradiation in food processing: current applications and strategies for commercial scale implementation

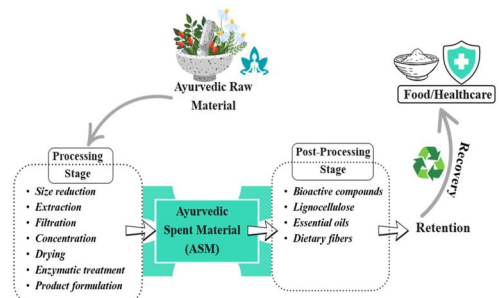
Chen Li, Runrun Zhang, Tahirou Sogore, Jinsong Feng, Xinyu Liao, Xiangyu Wang, Zhaohuan Zhang\* and Tian Ding\*



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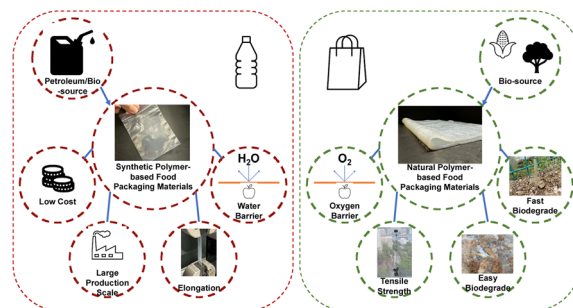
Billu Abraham, Shaheena Aziz A, Charles Brennan, Nitin Mantri, Nisha P\* and Benu Adhikari\*



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## Natural polymer-based food packaging: paving the way to a greener future – a review

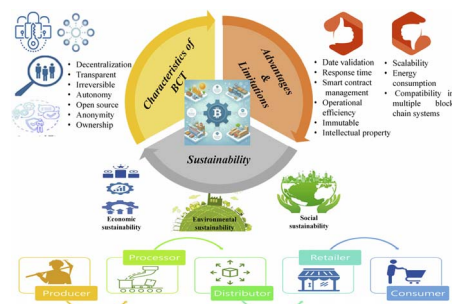
Chun Bong Yuen, Hio Lam Chong, Man-Hin Kwok\* and To Ngai\*



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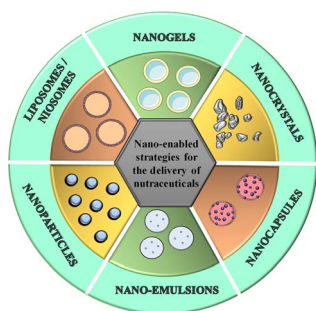
## Blockchain technology in the food supply chain: a way towards circular economy and sustainability

Devraj V. Rajput, Pavankumar R. More, Preeti A. Adhikari and Shalini S. Arya\*



## REVIEWS

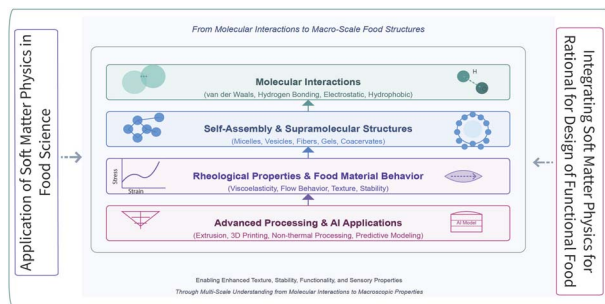
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## Recent overview of nanotechnology based approaches for targeted delivery of nutraceuticals

Jhalak Mehta, Khushboo Pathania and Sandip V. Pawar\*

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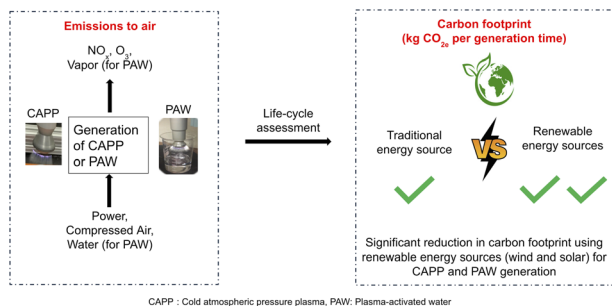


## Applications of soft matter physics in food science: from molecular interactions to macro-scale food structures

Subhash Pawde and Jaydeep Dave\*

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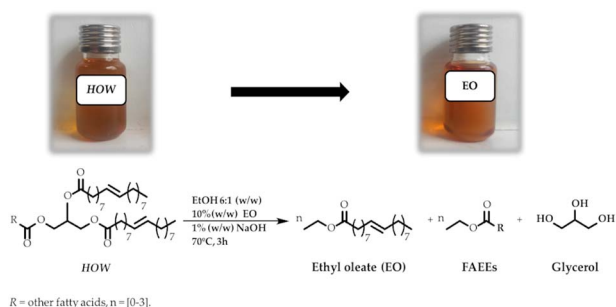


CAPP : Cold atmospheric pressure plasma, PAW: Plasma-activated water

## Environmental impact assessment of generating cold atmospheric pressure plasma and plasma-activated water at lab scale

Urvi Shah, Minliang Yang\* and Deepti Salvi\*

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## Sustainable synthesis and optimisation of ethyl oleate from high oleic acid waste: a pathway to valorise industrial byproducts

Ana Soares,\* Ana Luiza Fontes, Francisca Teixeira, Paula Costa, Lúcia Pimentel,\* Manuela Pintado and Luis Miguel Rodríguez-Alcalá\*

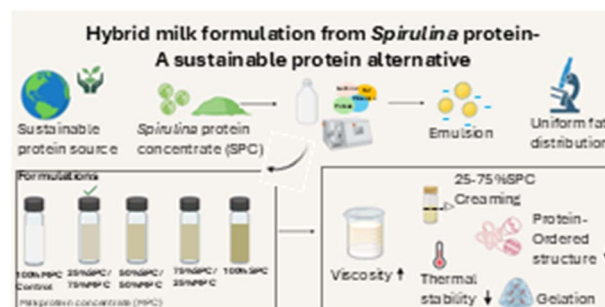


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### Formulation and characterization of hybrid milk containing bovine and *Spirulina* proteins

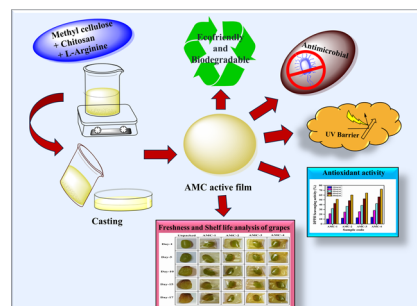
Jayani Samarathunga,\* Thi Phuong Linh Le, Max Gabard, Katrina Strazdins, Jeroen Rens and Benu Adhikari\*



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### Fabrication and characterization of methylcellulose/chitosan active films incorporated with L-arginine and their potential in the green packaging of grapes

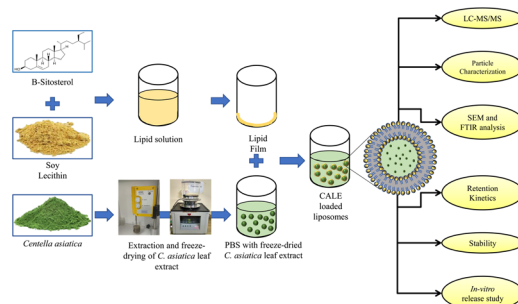
Suhasini Madihalli, Saraswati P. Masti,\* Manjunath P. Eelager, Manjushree Nagaraj Gunaki, Ravindra B. Chougale, Nagarjuna Prakash Dalbanjan and S. K. Praveen Kumar



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### Sustainable liposomal delivery of *Centella asiatica* polyphenols: $\beta$ -sitosterol stabilization, LC-MS/MS profiling, and simulated release study

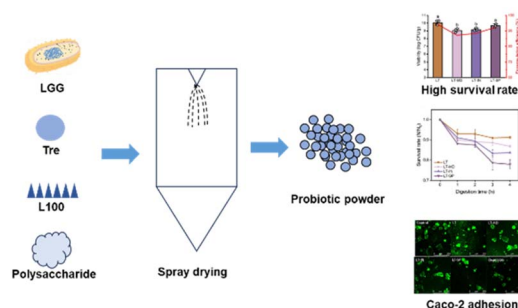
Soubhagya Tripathy\* and Prem Prakash Srivastav



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### Fabrication of microcapsules encapsulating *L. rhamnosus* GG with Eudragit® L100–trehalose and polysaccharides: a study on physicochemical properties and cell adhesion

Yuyan Xu, Shuangying Zhu, Xinyi Sun, Kai Shan, Chong Zhang, Hongmei Xiao, Xia Fan and Chuang Zhang\*





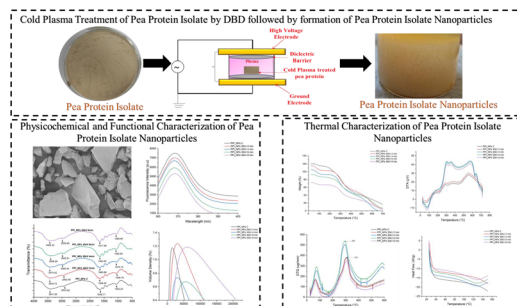
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### Optimization of a novel probiotic-fermented pearl millet-based strained yoghurt-like functional dessert: physicochemical, microbial and sensory characterization

Manvik Joshi, Kamallesh Kumar Meena,\* Arun Kumar and Sunil Meena

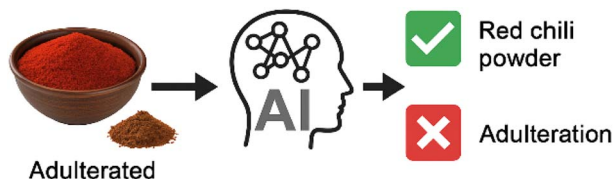
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### Dielectric barrier discharge cold plasma-modified pea protein nanoparticles: enhancing functional and thermal properties for food and biopolymer applications

Srutee Rout\* and Prem Prakash Srivastav

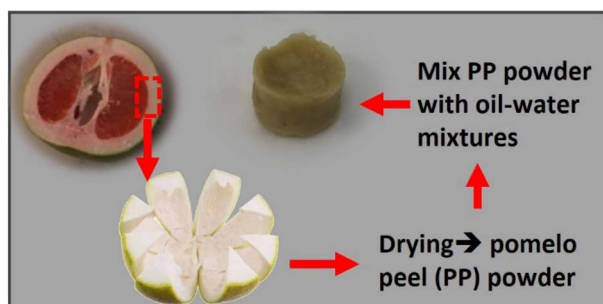
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### An XAI-enabled 2D-CNN model for non-destructive detection of natural adulterants in the wonder hot variety of red chilli powder

Dilpreet Singh Brar,\* Birmohan Singh and Vikas Nanda

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### Fabrication of gel-like sorbents derived from pomelo (*Citrus grandis* L.) peel powder via an immediate setting emulsion approach

Haoxin Wang, Peng Wang, Stefan Kasapis and Tuyen Truong\*

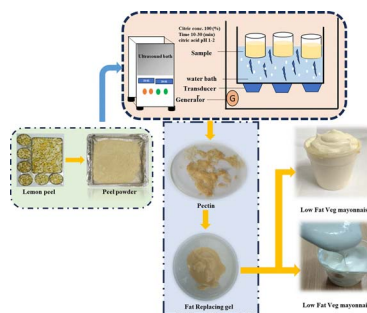


## PAPERS

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**Extraction of pectin from Assam lemon (*Citrus limon*) peel and its use in preparation of low-fat mayonnaise**

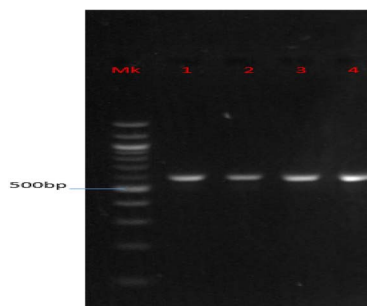
Nithish S, Ram Prasanna Kumar, Laxmi Kant Rawat, Nurin Afzia and Tabli Ghosh\*



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**Production and optimization of date fruit and honey wines using *Saccharomyces cerevisiae* isolated from various palm wine sources**

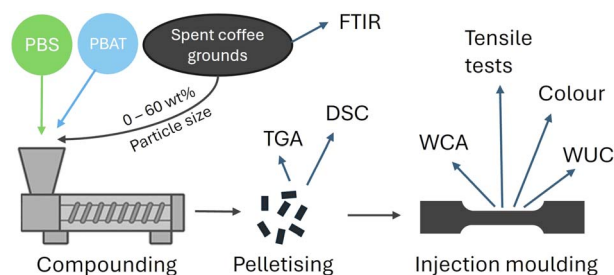
Ositadinma Chinyere Ugbogu,\* Alloysius Chibuike Ogo, Amadike Eziuche Ugbogu, Kingsley Chukwuemeka Nwachukwu and Frank Anayo Orji



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**Utilizing spent coffee grounds as sustainable fillers in biopolymer composites: influence of particle size and content**

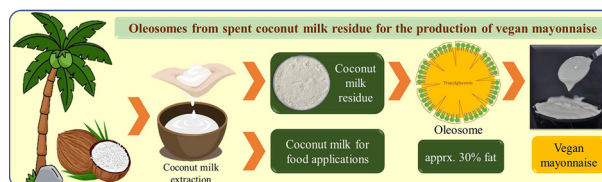
Gabriel Mäder, Nadine Rüegg, Tobias Tschichold and Selçuk Yildirim\*



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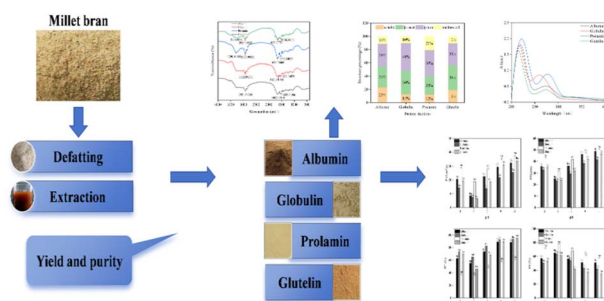
**Coconut oleosomes as a sustainable ingredient for food emulsion systems**

A. A. Anoop, P. M. Ramees and K. V. Ragavan\*



## PAPERS

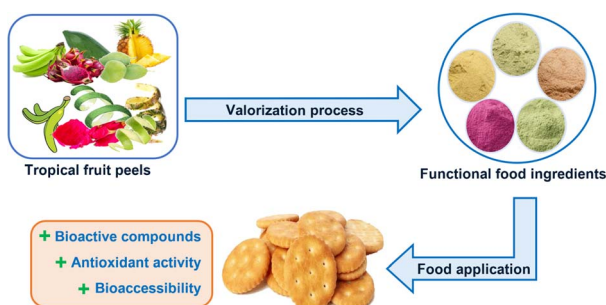
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### Extraction, structural characterization and functional properties of protein fractions from millet bran

Wenjie Zhao, Xia Fan, Juan Shen, Fanqiang Meng, Fengxia Lv, Zhaoxin Lu and Haizhen Zhao\*

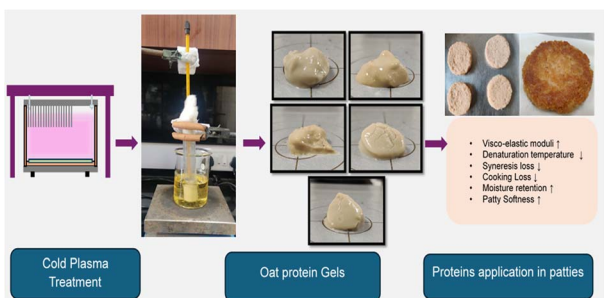
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### Sustainable valorization of tropical fruit peels for sustainable production of natural antioxidants and functional food ingredients

Panorjit Nitisuk, Pitchaporn Wanyo,\* Tossaporn Chamsai and Kiatipong Charoenjit

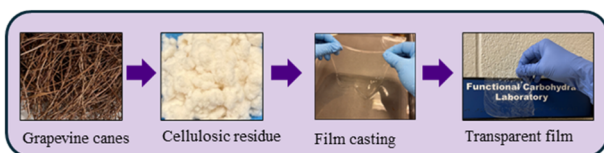
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### Cold plasma enhanced gelation and thermal properties of oat protein and its application in a selected model food system

Gunaseelan Eazhumalai, Ranjitha Gracy T. K. and Uday S. Annapure\*

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### Valorization of grapevine agricultural waste into transparent and high-strength biodegradable films for sustainable packaging

Sandeep Paudel, Sumi Regmi, Sajal Bhattarai, Anne Fennell and Srinivas Janaswamy\*





## CORRECTION

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**Correction: Duckweed: exploring its farm-to-fork potential for food production and biorefineries**

Anim Ujong, Joncer Naibaho, Soudabeh Ghalamara, Brijesh K. Tiwari, Shay Hannon and Uma Tiwari\*

