

# Sustainable Food Technology

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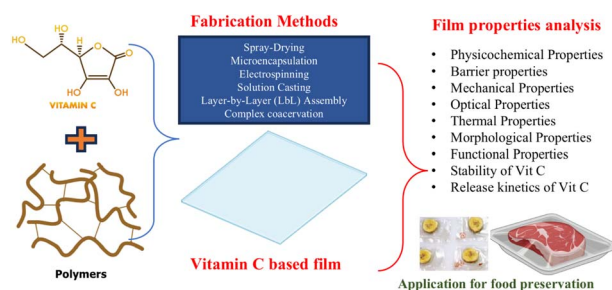
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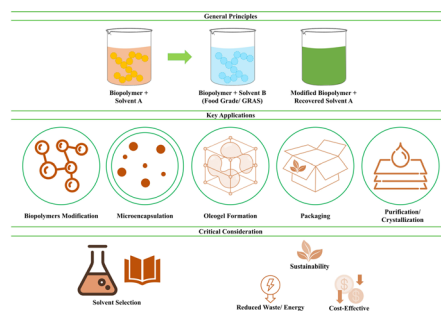
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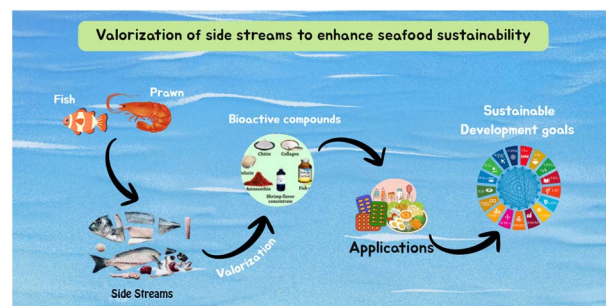
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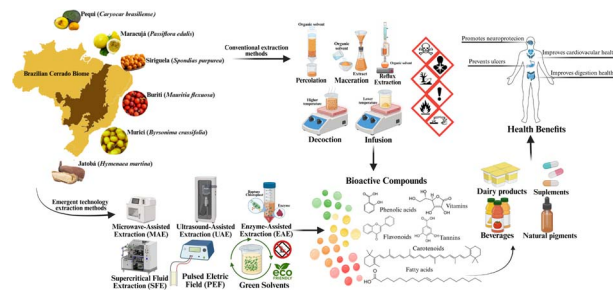
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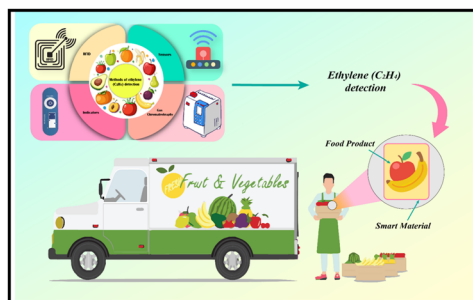
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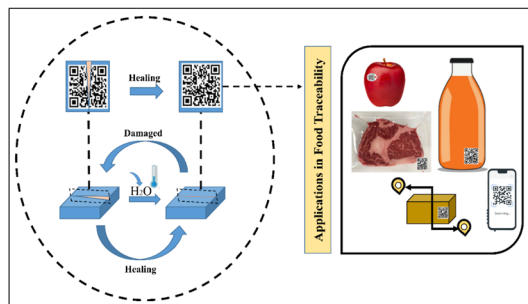
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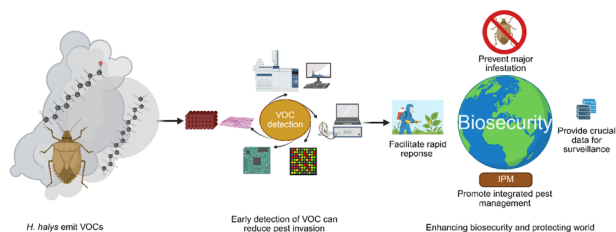
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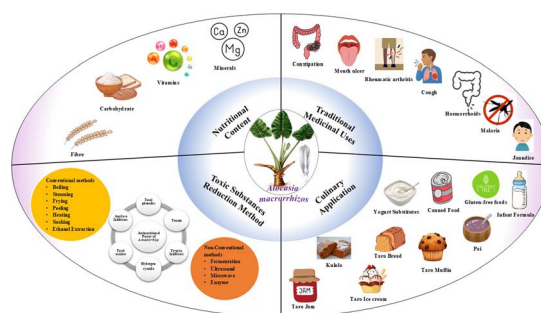
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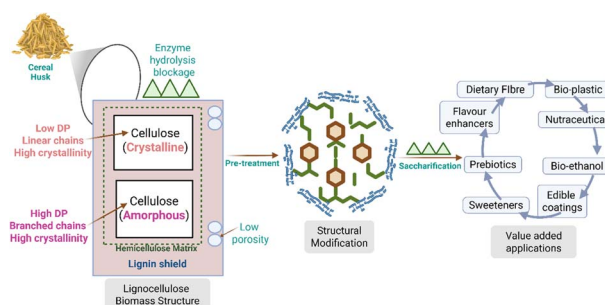
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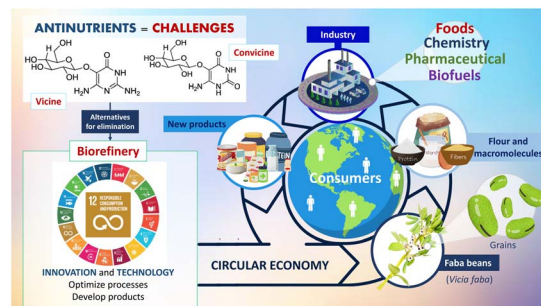
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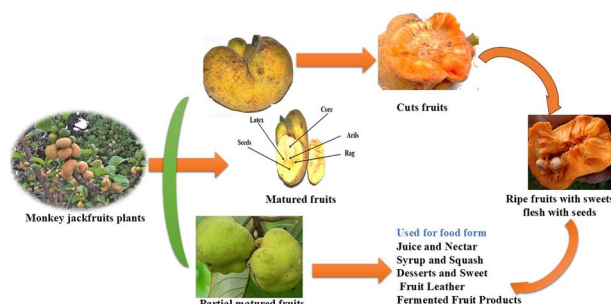
Luiz Eliel Pinheiro da Silva, Thaís Caroline Buttow Rigolon, Paulo César Stringheta, Evandro Martins, Seid Mahid Jafari\* and Pedro Henrique Campelo\*



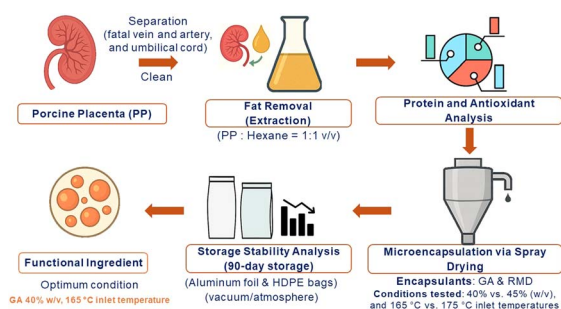
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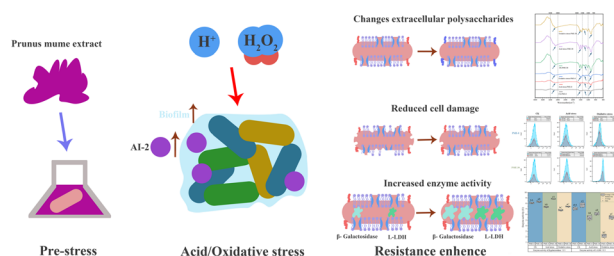
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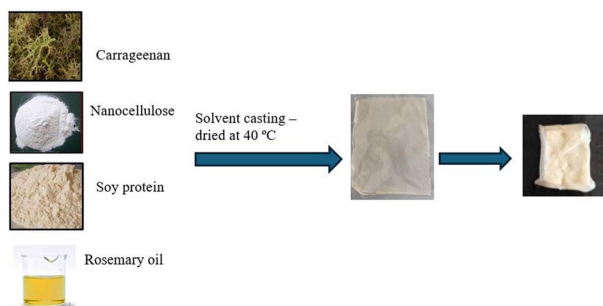
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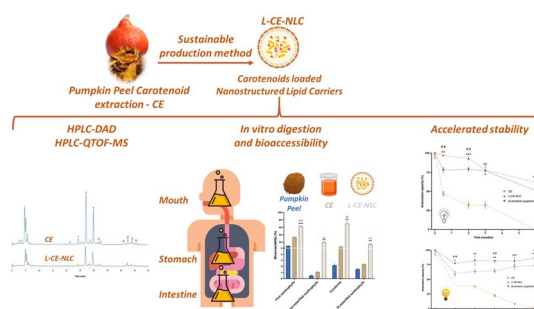
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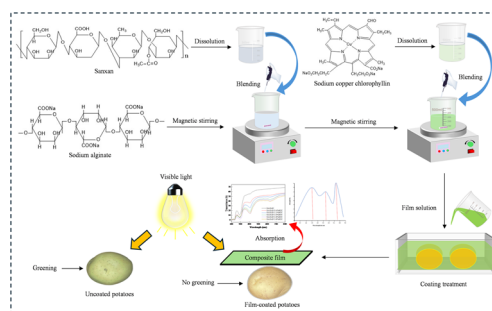
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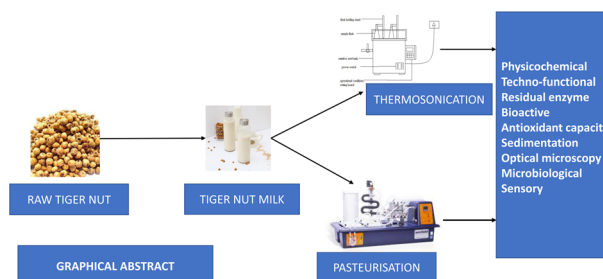
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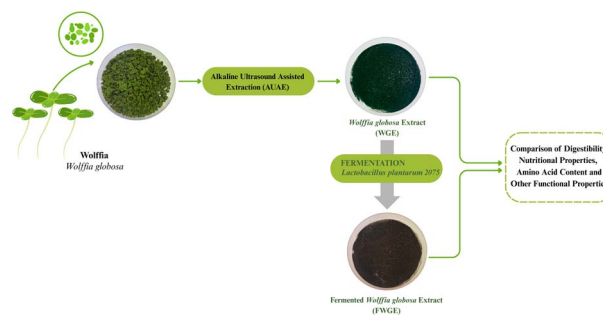
Adebola O. Oladunjoye\* and Mopelola I. Idiat



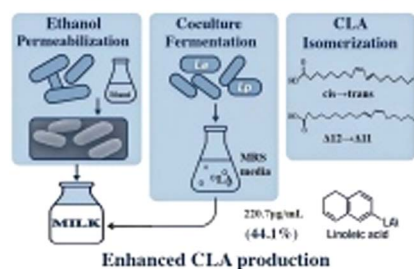
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Nontikarn Taramark, Daniel Rice, Atikorn Panya and Anil Kumar Anal\*

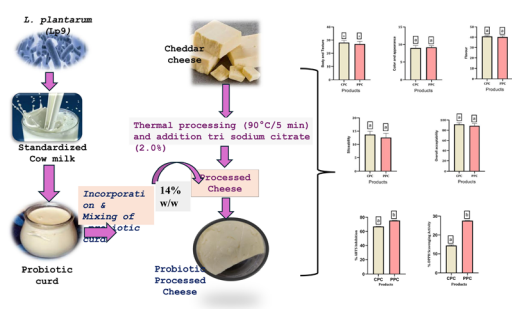


## Biocatalytic production of CLA



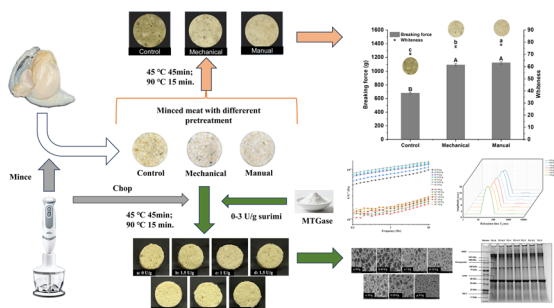
## Sustainable enhancement of conjugated linoleic acid (CLA) production in lactic acid bacteria cocultures via ethanol permeabilization

Lan Cheng, Miao Wang, Yingying Wang, Yumeng Chang, Yan Ding and Shuhong Ye\*

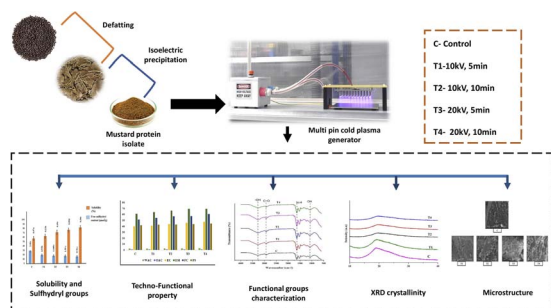


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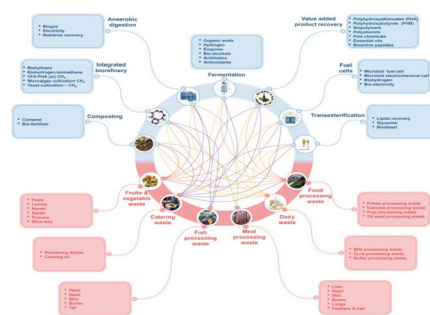
Fizah Farooq, Toiba Majeed, Sharath Kumar Nagaraja\* and Aamir Hussain Dar\*



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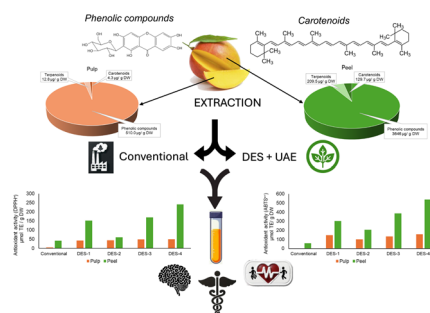
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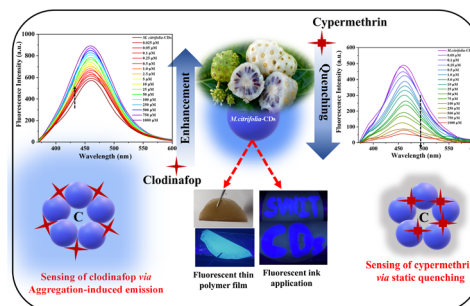
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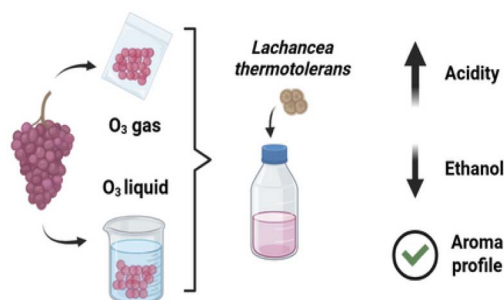
Juhi Bhadresh Raval, Vaibhavkumar N. Mehta, Sanjay Jha, Tae Jung Park and Suresh Kumar Kailasa\*



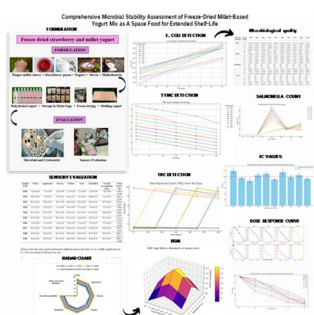
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Yaiza Rodríguez, Juan Manuel del Fresno, Carmen González, María Antonia Bañuelos and Antonio Morata\*



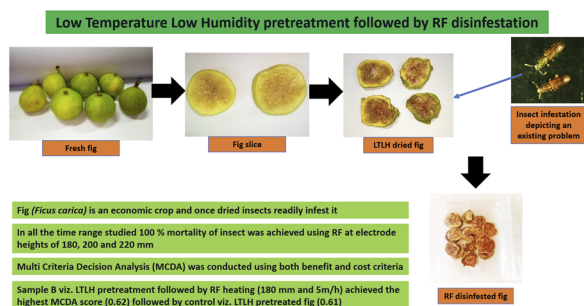
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## Comprehensive microbial stability assessment of freeze-dried millet-based yogurt mix as a space food for extended shelf-life

D. Mahalakshmi\* and Samuel Ayofemi Olalekan Adeyeye

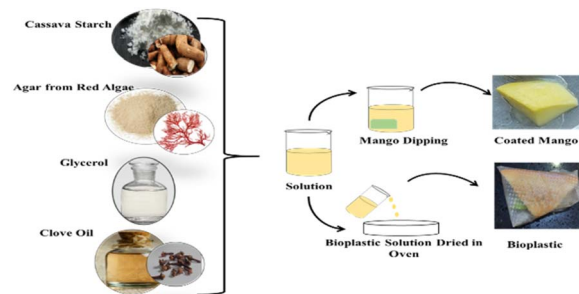
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## Low-temperature low-humidity pretreatment followed by RF heating: a novel method of fig preservation

Irengbam Barun Mangang,\* A. Vidhya Lakshmi, N. Venkatachalapathy and M. Loganathan\*

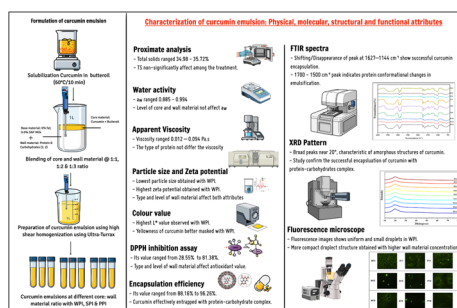
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David Rohindra,\* Reeha Sharma, Roselyn Lata and Tejesvi Patel

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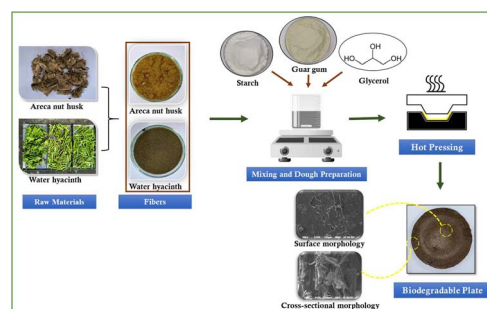
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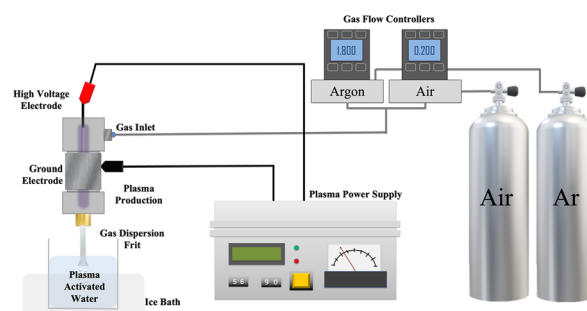
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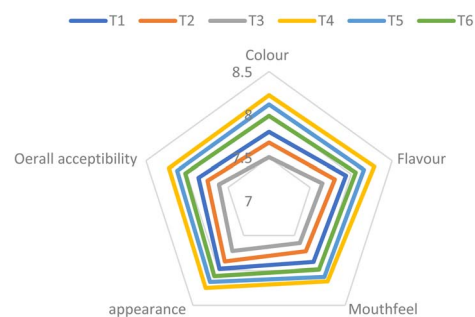
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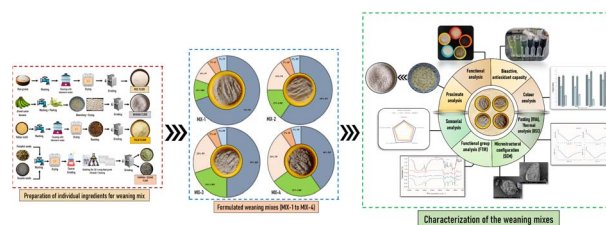
Naseh Nisar, Sajad Mohd Wani\*, Mohd Masarat Dar, Danish Rizwan and Zahida Naseem



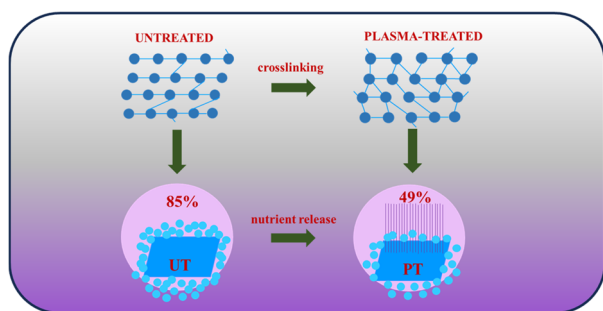
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Udipta Hazarika, Prapti Saikia, Manisha Choudhury, Donee Gohain and Mamoni Das\*



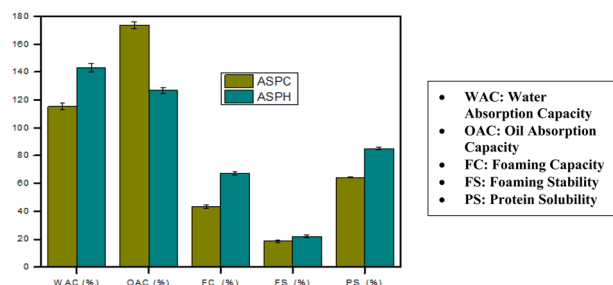
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Nandhu Varshini Gnanasekar  
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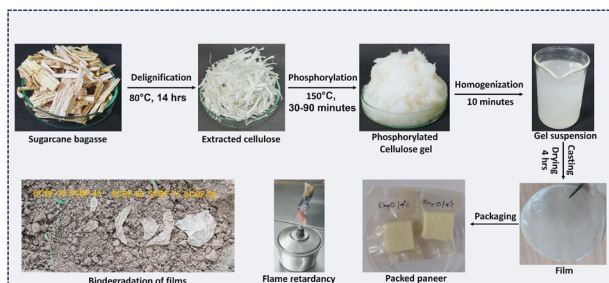
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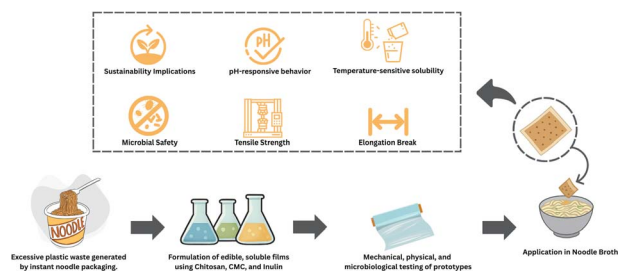
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Rahul Ranjan, Chandra Kant and Prodyut Dhar\*

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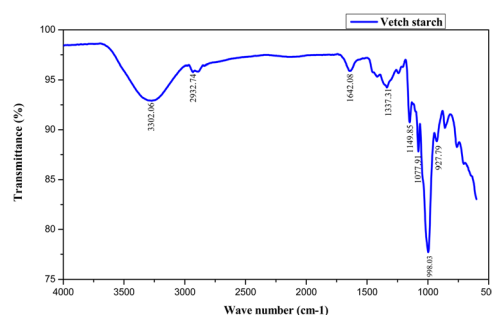
Katherine Aprille S. Dula, Daniel Rice, Johnmel A. Valerozo  
and Anil Kumar Anal\*



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Toiba Majeed, Aamir Hussain Dar\* and Tariq Ahmad Ganaie

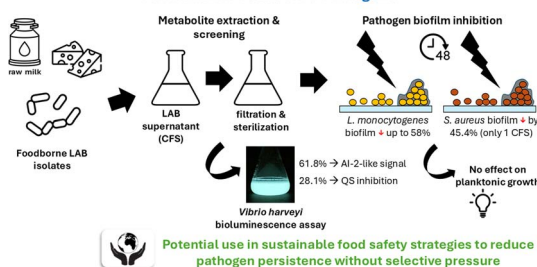


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## Sustainable biofilm control using lactic acid bacteria to disrupt quorum sensing in foodborne pathogens

Dimitra Kostoglou, Alexandra Vlachopoulou, Georgios Vafeiadis and Efstathios Giaouris\*

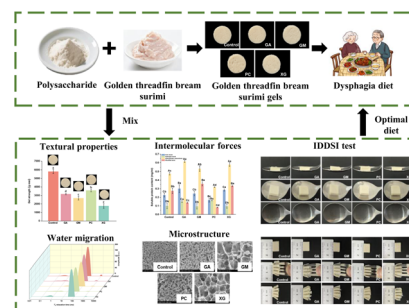
### LAB Supernatants Disrupt AI-2 Quorum Sensing (QS) and Inhibit Biofilm Formation in Foodborne Pathogens



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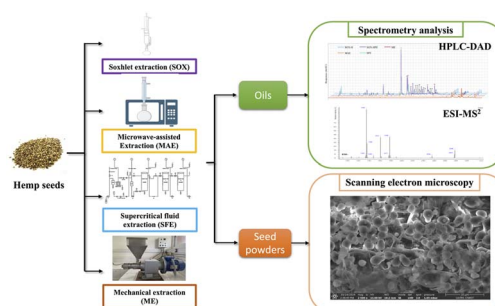
Jiani Zhou, Zhujun Zhang, Yinyin Lv, Bin Lai, Ce Wang, Haitao Wu and Jianan Yan\*



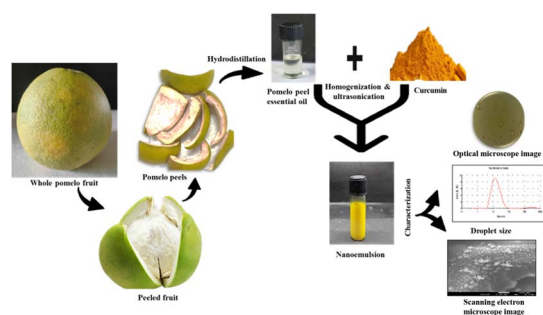
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Aymane Allay, Rafika El Ati, Youssef Rbah, Marie-Laure Fauconnier, Hana Serghini Caid, Ahmed Elamrani and Farid Mansouri\*



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### Development and characterization of a functional nanoemulsion using pomelo peel essential oil and curcumin

Parismita Koch, Munmi Borah, Sankar Chandra Deka and Poonam Mishra\*

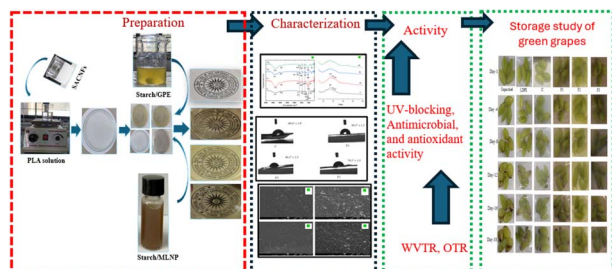
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### From cow to coconut: a literature review of the environmental cost of ice cream

Faustina Sakyiwaah Sekyere and Andrea Hicks\*

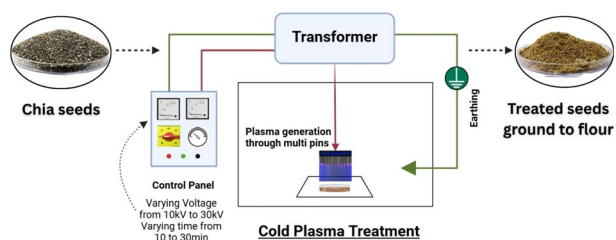
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### PLA/starch bi-layer films reinforced with rice straw cellulose nanofibers and functionalized with organosolv–lignin nanoparticles and grapefruit bioactives for shelf life extension of green grapes

Makdud Islam,\* Akhouri Sanjay Kumar Sinha and Kamlesh Prasad\*

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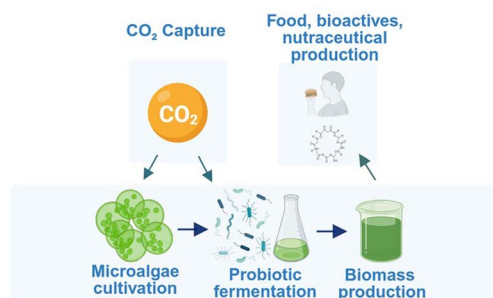
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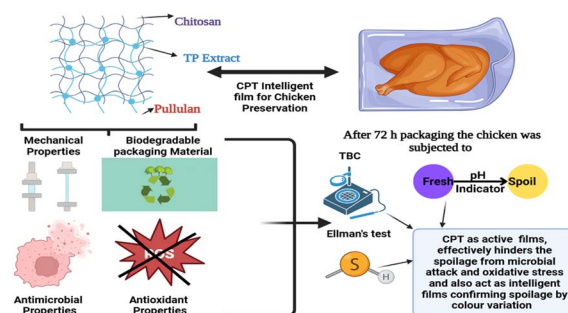
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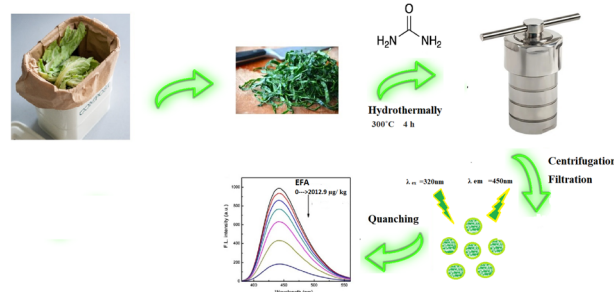
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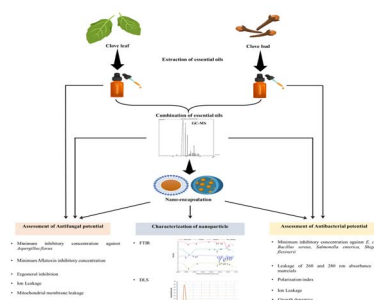
Fatemeh Esfandiyari Bayat, Hossein Tavallali,\* Mohammad Reza Baezzat and Saeed Yousefinejad\*



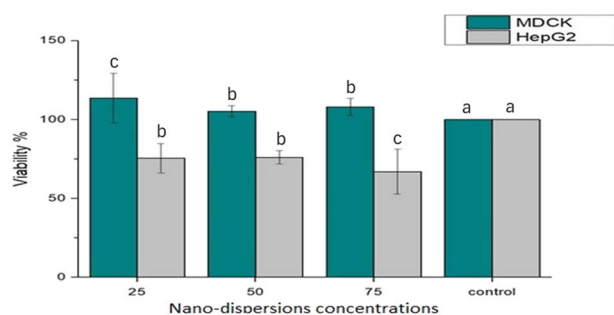
823

### Assessing the antibacterial, antifungal, and antiaflatoxigenic activity of a developed nanoformulation based on a combination of *Syzygium aromaticum* leaf and bud essential oils

Tanya Singh Raghuvanshi, Vishal Gupta and Bhanu Prakash\*



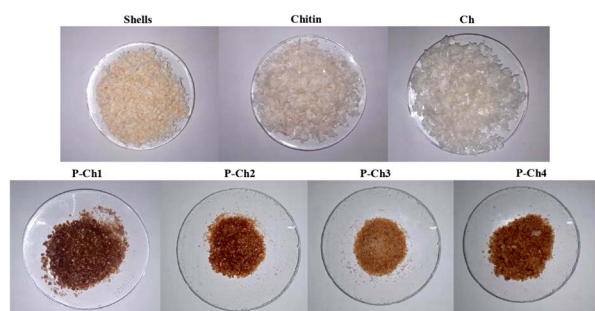
842



### Formulation of casein–curcumin nanodispersions using microfluidization and nano-precipitation methods: cytotoxicity and *in vitro* release in a mango drink

Maanya Mehrotra, Shashank Singh, Nikita Kansal, Kiran Verma, Anit Kumar\* and Narashans Alok Sagar\*

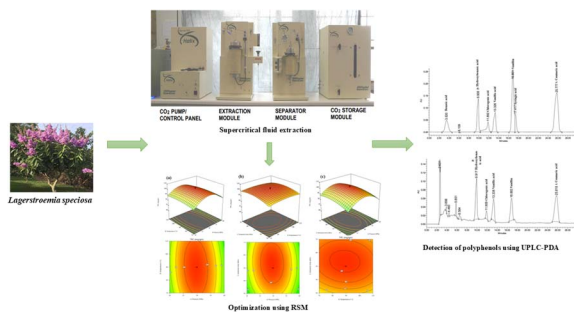
851



### Sustainable conversion of *Panaeopsis serrata* waste into phosphorylated chitosan for agricultural drought mitigation

Fatima El Amerany,\* Oumaima Ait Ali and Mohammed Rhazi

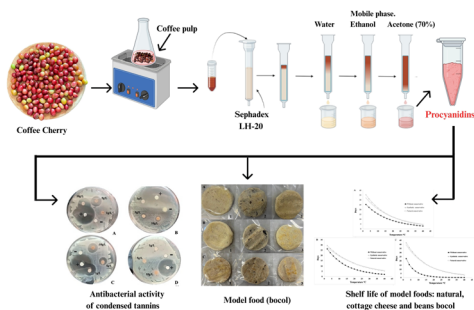
868



### Optimization of supercritical fluid extraction of valuable compounds from *Lagerstroemia speciosa* leaves for *in vitro* antidiabetic and antioxidant activity

Kiran Khandare and Saswata Goswami\*

885



### Evaluation of condensed tannins from coffee pulp (*Coffea arabica*) as a natural preservative: study in a model food

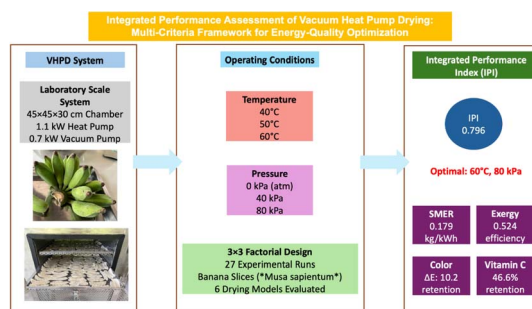
Sandy R. García-Rodríguez, Hector Reynoso-Ponce, Diana B. Muñoz-Márquez, Abigail Reyes-Munguía, Martina de la Rosa-Hernández and Jorge E. Wong-Paz\*



894

## Integrated performance assessment of vacuum heat pump drying: a multi-criteria framework for energy-quality optimization in banana slice drying

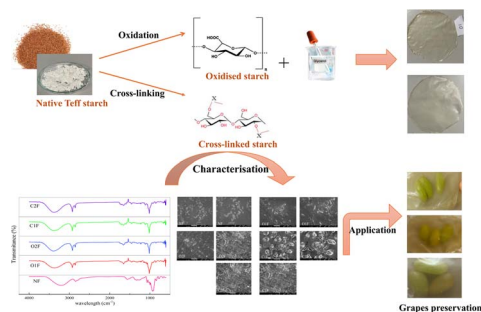
Thanapon Saengsuwan and Narathip Sujinda\*



916

## Eco-friendly biofilms from chemically modified Indian teff (*Eragrostis tef*) starch for quality maintenance and shelf-life improvement of green grapes

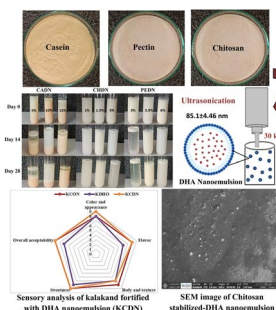
Ramandeep Kaur Sidhu,\* C. S. Riar and Sukhcharn Singh



930

## Ultrasound-assisted microalgal docosahexaenoic acid (DHA) nanoemulsion preparation using casein, chitosan, and pectin as emulsifiers for enhanced oxidative stability and shelf life for food fortification

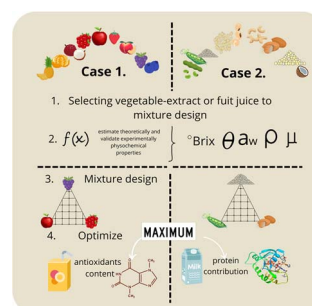
Sirajdeen Asmath Mubeena and Radhakrishnan Preetha\*



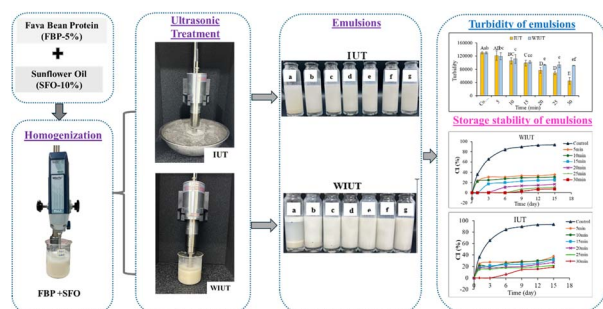
947

## A comparative study of theoretical model-based optimization and experimental design approaches for functional beverage formulation

Regina Navarrete-González, Aurelio López-Malo, Enrique Palou and Nelly Ramírez-Corona\*



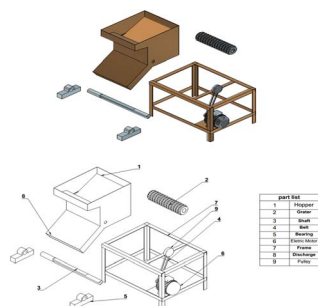
961



### Comparative analysis of the effect of ultrasonic treatment with ice and without ice cooling on the stability of oil-in-water emulsions stabilized by fava bean (*Vicia fava* L.) protein

Susma Bhattarai,\* Sanjaya Karki, Yottha Srithep, Kunwadee Kaewka and Arissara Phosanam\*

972



### Development and performance evaluation of a hygienic and portable small-scale cassava grater for safe food processing

Kehinde A. Adeyeye,\* Cornelius Folahan Oladipupo, Sanni Sodiq, Tomilola F. Oguntunde and Tosin O. Olanrewaju

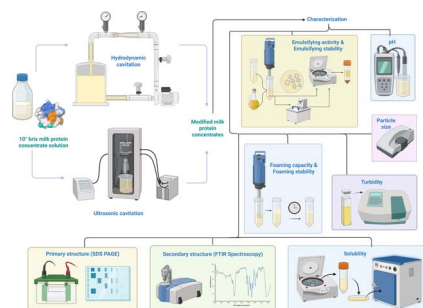
985



### L-Net: a lightweight CNN framework for sustainable multicrop leaf disease detection and classification on edge devices

R. Deepa, Midhun P. Mathew,\* S. Baskar and Abubeker K. M\*

1004



### Hydrodynamic and ultrasonic cavitation physically modifies the milk protein concentrates with improved functionality

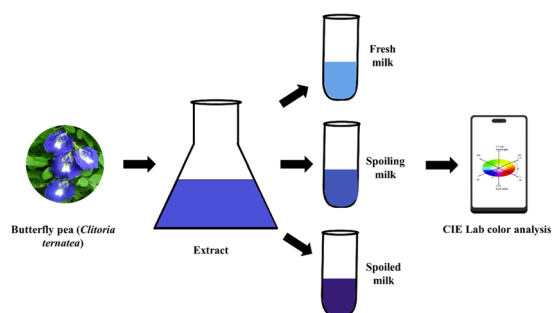
Shreyas H. K., Preeti Adhikari, Anas Ejaz Yasmeen Shaikh and Shalini S. Arya\*



1021

### Dual-indicator approach for real-time milk freshness detection using butterfly pea anthocyanins and riboflavin fluorescence

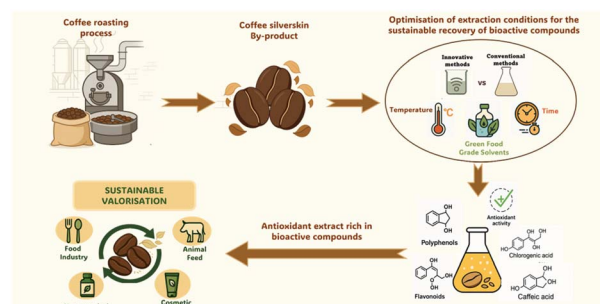
Parita A. Mangroliya, Tanmay Hazra,\* Kunal Ahuja, Rohit Sindhav, Anamika Das, Subhadip Manik and Vimal Ramani



1032

### Sustainable recovery of bioactive compounds from coffee silverskin

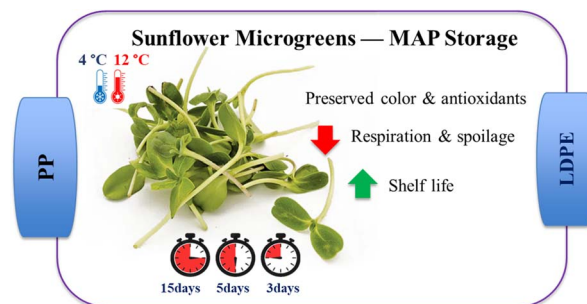
Miriam Arianna Boninsegna, Amalia Piscopo,\* Alessandra De Bruno, Tiziana Taglieri, Valerio Chinè and Marco Poiana



1045

### Modified atmosphere packaging of sunflower microgreens (*Helianthus annuus*) for quality and postharvest shelf-life extension

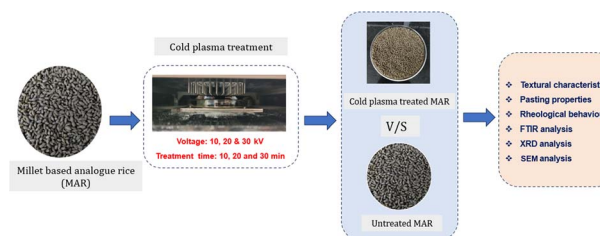
Elham Azarpazhooh,\* Parvin Sharayei, Yeganeh Sabeghi, Fatemeh Zare, Xin Rui and Hosahalli S. Ramaswamy\*



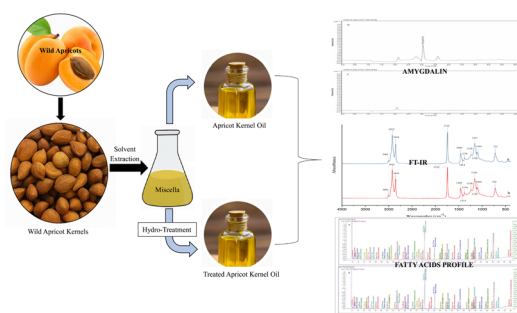
1057

### Enhancing millet-based analogue rice through sustainable cold plasma treatment: effects on mineral composition, structural, textural, cooking, and rheological properties

S. Ganga Kishore, Madhuresh Dwivedi,\* R. Rahul, J. Deepa, G. Jeevarathinam,\* K. Kamaleeswari, Gitanjali Jothiprakash and Abinaya Veluswamy



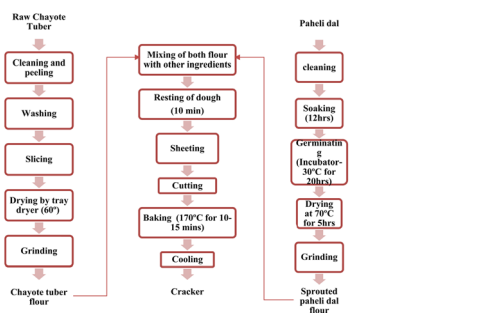
1073



### Hydro-treatment of wild bitter apricot kernel oil: a cheap and cost-effective alternative for reducing toxicity and enhancing quality

Swati Joia, Himanshi Rao, Raashid Ahmad Siddiqi and Tajendra Pal Singh\*

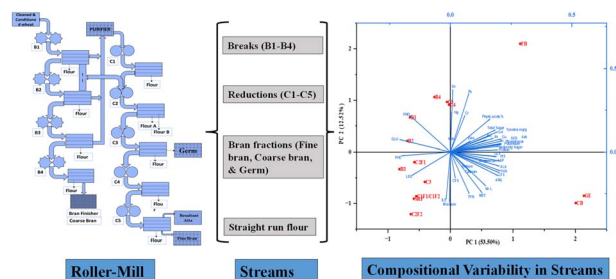
1083



### Quality characterization, optimization and consumer acceptance of enriched gluten-free crackers through valorization of chayote tuber and sprouted puheli dal flour

Robishini Akoijam, Dhamchoe Dolma Bhutia, Sujata Jena\* and Prashant Pandharinath Said

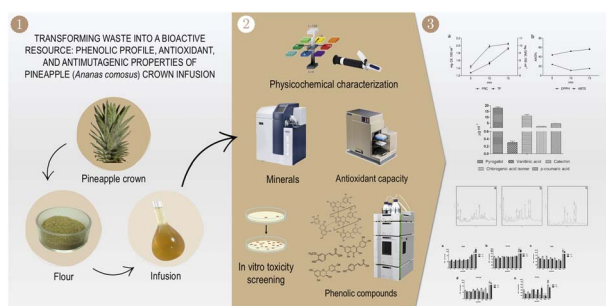
1099



### Compositional variability in roller-mill processed streams: distribution of macro- and micronutrients, phytochemicals, and contaminants (heavy metals and anti-nutrients)

Veeranna Hitlamani, Swamy Gowda M. R., Salony Azam Sheikh, Nandini P. Shetty, Sridevi Annapurna Singh and Aashitosh Ashok Inamdar\*

1115



### Transforming waste into a bioactive resource: phenolic profile, antioxidant, and antimutagenic properties of pineapple (*Ananas comosus*) crown infusion

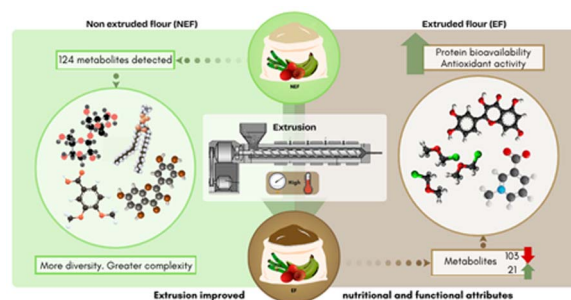
Talita Braga de Brito Nogueira, Lays Souza da Silva, Carlos Fernando Araujo Lima, Mateus Grilo de Oliveira Carvalho, Mônica Regina da Costa Marques, Israel Felzenszwalb, Juliano Lemos Bicas, Mariana Simões Larráz Ferreira\* and Ana Elizabeth Cavalcante Fai\*



1126

### Extrusion-driven metabolic shifts in composite flour from coffee and plantain byproducts

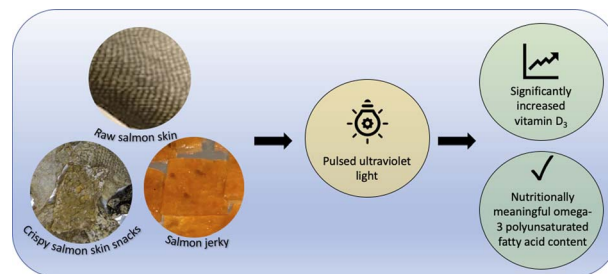
Laura Sofía Torres-Valenzuela,\* Carolina Franco-Urbano, Diana Paola Navia-Porras, Jose Luis Plaza-Dorado and Mónica P. Cala



1136

### Vitamin D biofortification of salmon (*Salmo salar*) processing offcuts to create novel shelf-stable foods

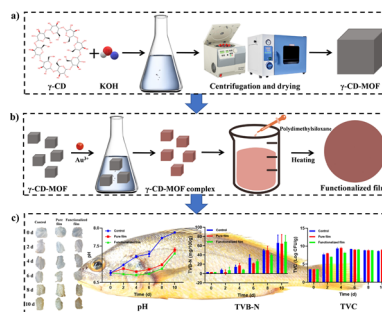
Eleanor Dunlop,\* Wing Huen Chung, Janet Howieson, Belinda Neo, Welma Stonehouse, Paul Adorno, Georgios Dabos, Linda Portsmouth and Lucinda J. Black



1144

### An antibacterial $\gamma$ -CD-MOF complex functionalized film for fish meat safety and freshness

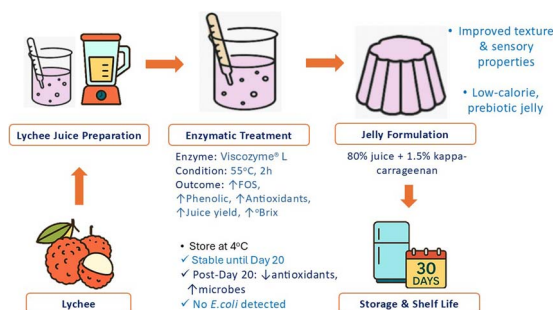
Meimei Guo, Tahirou Sogore, Jin Huang, Xinyu liao, Mofei Shen\* and Tian Ding\*

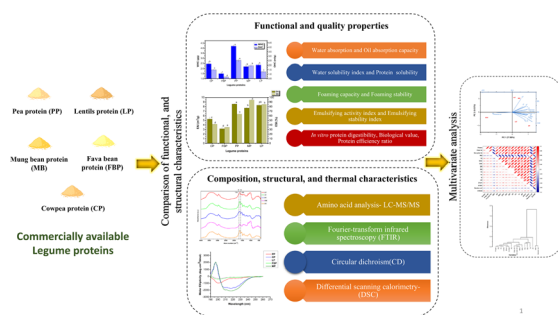


1157

### Enzymatic bioprocessing of lychee juice for fructooligosaccharide enhancement and sustainable functional jelly formulation

Nattida Pongjuntuk, Saeid Jafari, Sochanet Chheng and Kitipong Assatarakul\*





## Functional and structural characterization of legume protein derivatives for advanced plant-based food applications

Harsha Varayil and Jayeeta Mitra\*

