

Sustainable Food Technology

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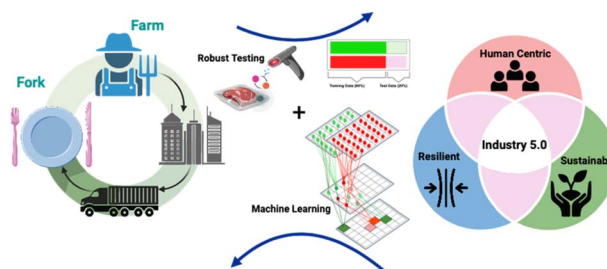
See Pola Goldberg Oppenheimer *et al.*, pp. 10–31. Image reproduced by permission of P. Goldberg Oppenheimer and Debarati Bhowmik from *Sustainable Food Technol.*, 2025, 3, 10.

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Fabiano A. N. Fernandes* and Sueli Rodrigues

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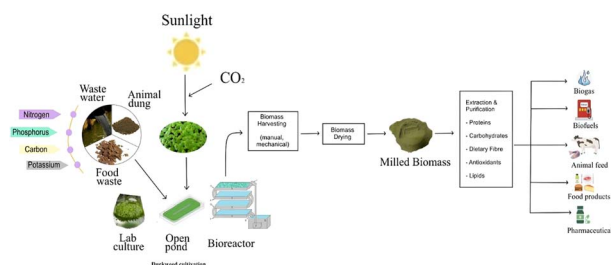


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Duckweed: exploring its farm-to-fork potential for food production and biorefineries

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

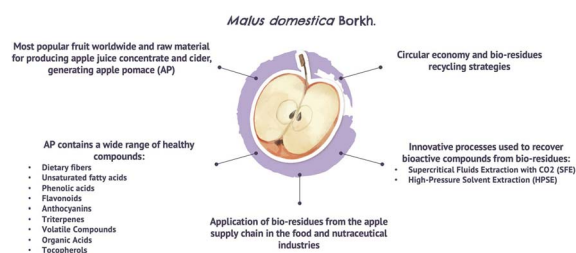


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Closing the loop: exploring apple pomace as a source of bioactive compounds in the framework of circular economy

Liege Aguiar Pascoalino, Lillian Barros, João C. M. Barreira, M. Beatriz P. P. Oliveira and Filipa S. Reis*

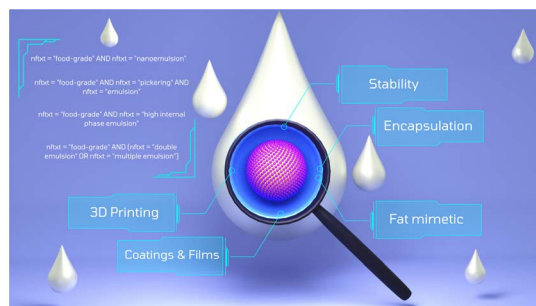
CLOSING THE LOOP: EXPLORING APPLE POMACE AS A SOURCE OF BIOACTIVE COMPOUNDS IN THE FRAMEWORK OF CIRCULAR ECONOMY



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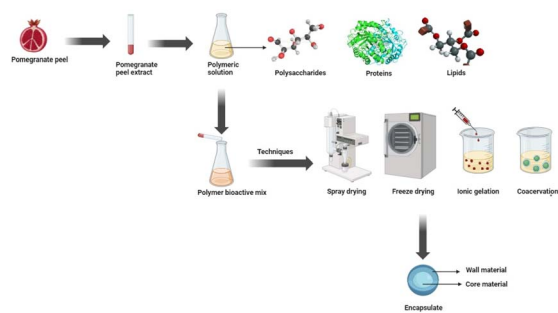
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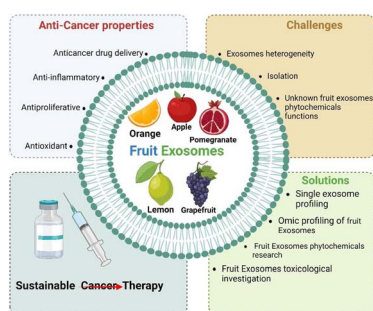
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Rahul P B, Ravindra Kumar Tiwari, Kshirod K. Dash* and Maanas Sharma*



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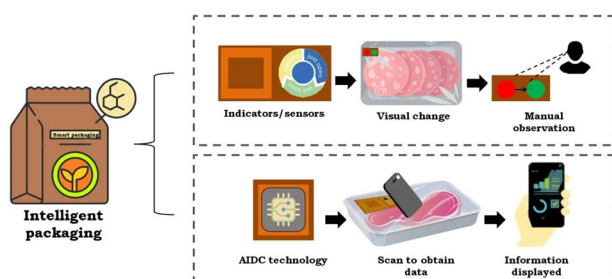
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The contribution of digital and sensing technologies and big data towards sustainable food supply and value chains

Daniel Cozzolino*

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Aqueous Extraction Process

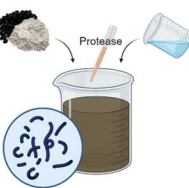
Conventional alkaline extraction process used widely in the food industry



pH 9.0, 1:1.5 solids-to-liquid ratio, 30 min, 50 °C

Enzyme-Assisted Aqueous Extraction Process

Addition of food-grade protease to conventional process enhances protein extractability and modulates functional and biological properties



pH 9.0, 1:7.5 solids-to-liquid ratio, 60 min, 50 °C, 1% Alkaline Protease

- Achieves comparable protein yields (78%) using 50% less water
- Exhibits multi-stage protein extraction kinetics
- Improves protein solubility in acidic conditions, but decreases emulsifying capacity
- Almost doubles *in vitro* protein digestibility and reduces antinutritional factors

Created with BioRender.com

Optimizing alkaline and enzymatic extraction of black bean proteins: a comparative study of kinetics, functionality, and nutritional properties

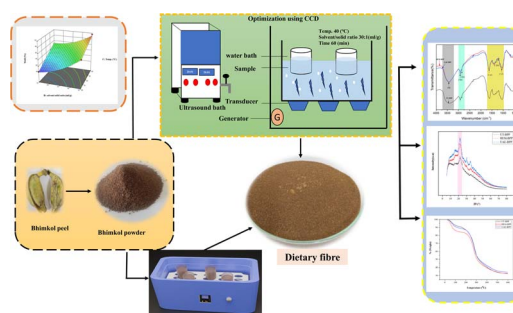
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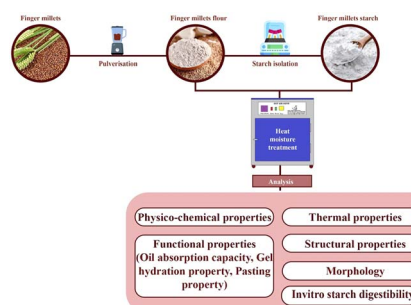
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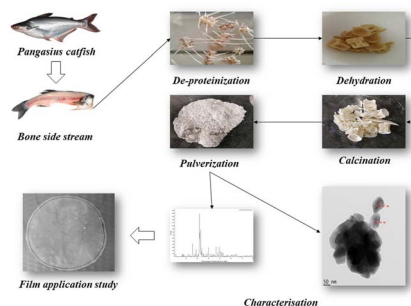
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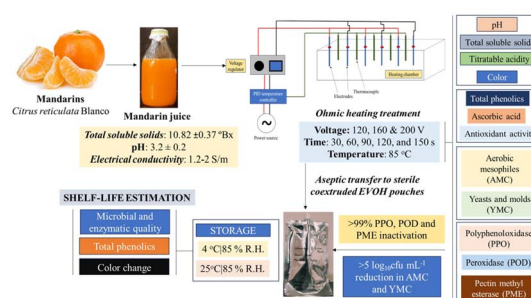
Oshin Kawduji Thool, Abhilash Sasidharan,* Bindu M. Krishna, Sarasan Sabu, Muhammed Navaf and Kappat Valiyapeediyekkal Sunooj



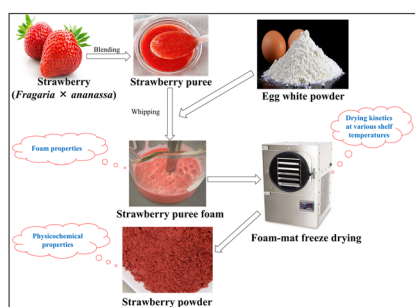
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Pasteurization of mandarin juice by ohmic heating and evaluation of its shelf-life under refrigerated and ambient conditions

Somnath Basak, Piyush Thakur and Snehasis Chakraborty*



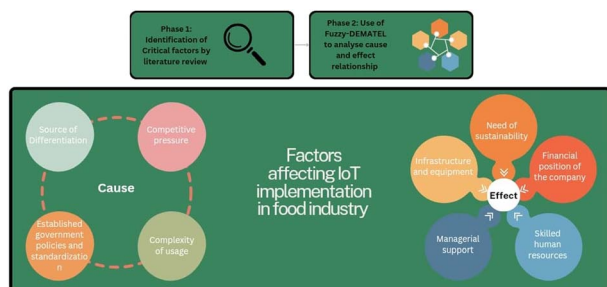
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Efficient freeze-drying of foamed strawberry puree: a study on drying kinetics and physicochemical properties

Zhihao Zhou, Carlos Parra-Escudero, Hengjun Du, Xiaojing Guo, Qi Wang, Hang Xiao* and Jiakai Lu*

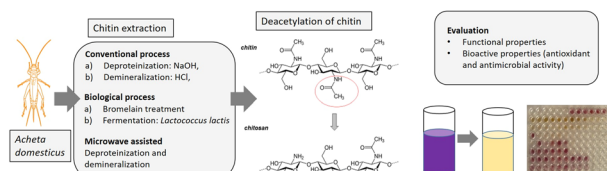
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Mapping the critical factors of IoT implementation in the food industry

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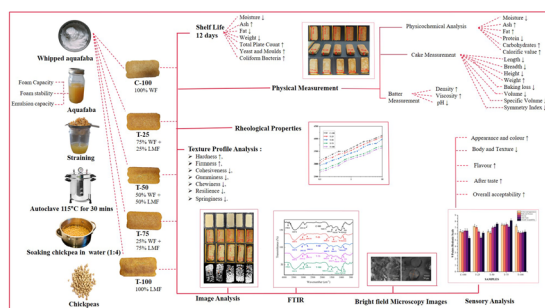
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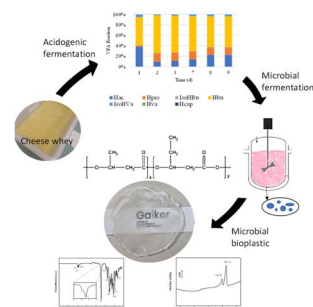
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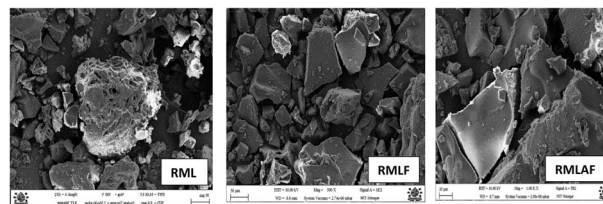
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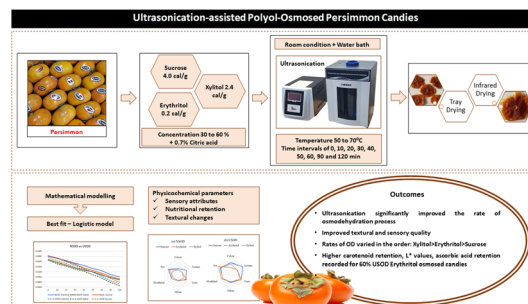
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