

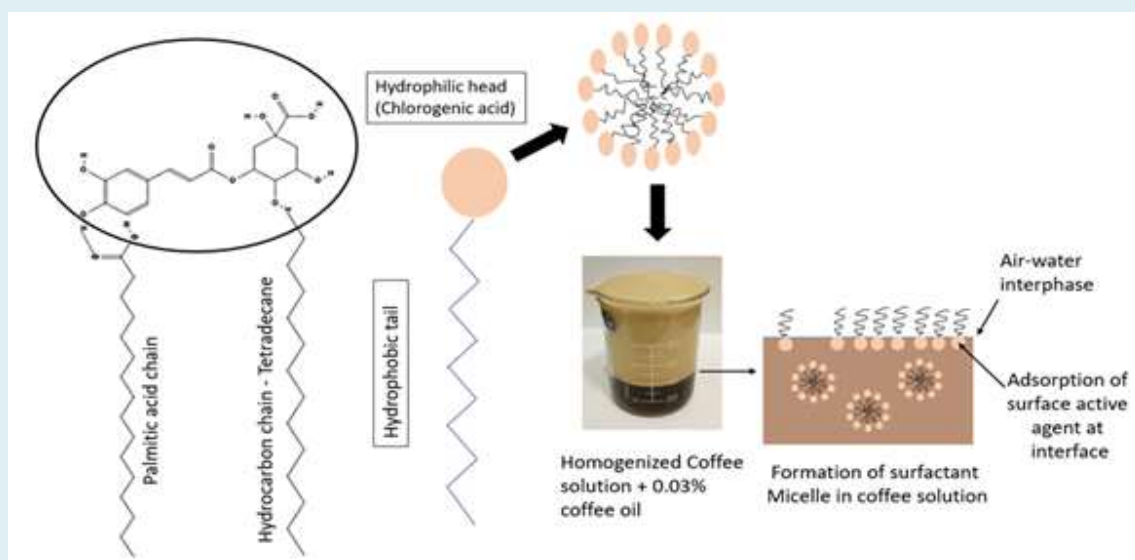
Nanopatterning with Low Temperature Process for the Production of Instant Foaming Soluble Coffee

Salient features

- Development of methodology for the stabilisation of microbubbles in foamed coffee extract by the self-assembly based nanopatterning technique.
- Development of spray-freeze-drying process for the drying of foamed coffee extract.
- Characterisation of nanopatterned microbubbles in the foamed coffee extract and the aroma profile of the dried soluble coffee powder.

Advantages

- ✓ Enhanced foam stability
- ✓ Novel drying technique with improved flavour/volatiles retention



Schematic representation of self-assembly formation on air-water interface

Process Technology / Product developed by

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Status of commercialization / Patent / Publication

- Deotale, S., Dutta, S., Moses, J.A., Balasubramaniam, V.M. and Anandharamakrishnan, C. 2020. Foaming Characteristics of beverages and its relevance to food processing. *Food Engineering Reviews*, 1-22.
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