

LIST OF PUBLICATIONS AND CONFERENCES

List of published peer-reviewed journal articles obtained from the thesis:

- **Chutia, H.**, and Mahanta, C. L. Green ultrasound and microwave extraction of carotenoids from passion fruit peel using vegetable oils as a solvent: Optimization, comparison, kinetics, and thermodynamic studies. *Innovative Food Science & Emerging Technologies*, 67, 102547, 2021.
- **Chutia, H.**, and Mahanta, C. L. Properties of starch nanoparticle obtained by ultrasonication and high-pressure homogenization for developing carotenoids-enriched powder and Pickering nanoemulsion. *Innovative Food Science & Emerging Technologies*, 74, 102822, 2021.
- **Chutia, H.**, and Mahanta, C. L. Kinetics and thermodynamics studies on thermal degradation of differently treated starch nanoparticles and estimation of the OH groups and H₂O content on particle surface. *Journal of Applied Polymer Science*, e53454, 2022.
- **Chutia, H.**, Sharma, M., Das, M. J., Mahanta, C. L. Properties of dietary fibre from passion fruit seed obtained through individual and combined alkaline and ultrasonication extraction techniques. *Waste and Biomass Valorization*, 2023. (WAVE-D-23-00404R1) (Accepted).
- **Chutia, H.**, Mahanta, C. L. Recent trends in the application of bio-based emulsifiers and their clean labelled physical conjugates for food applications. *Food Chemistry Advances*, 2023 (FOCHA_100469) (Accepted).

List of peer-reviewed journal articles under Review:

- **Chutia, H.**, Begum, F., Rohilla, S., Mahanta, C. L. Impact of thermosonication treatment on passion fruit juice: ANN/GA optimization, predictive modelling for shelf life and quality changes during storage.
- **Chutia, H.**, Mahanta, C. L. Kinetic modelling of dual extraction of oil from passion fruit seeds by ultrasonication and Soxhlet methods and a comparative evaluation of the optimized oil extract.

Manuscripts under development process for peer-reviewed journals

- **Chutia, H.** & Mahanta, C.L. Fuzzy logic sensory optimization of passion fruit-based blended beverage and its parameters analysis

Work portion submitted to IPR cell, Tezpur University to Filed patent

- Development of shelf stable passion fruit based-beverage enriched with beta-carotene. [TUIPR/Patent /09/2011/ (Tezpur University, IPR)].

Conferences/ Training programme

- Selected as one of the 15 best international presentations at the International Conference on Advances in Chemistry and Biology of Carbohydrates organized by Forest Research Institute, Dehradun, India & Association of Carbohydrate Chemists and Technologists India (ACCTI) on 04-05th December 2021.
- Poster presentation at the International Conference jointly organized by Tezpur University and the University of Georgia, US, 24-25th June 2021.
- Poster presentation at the International Conference Organized by Ghani Khan Choudhury Institute of Engineering and Technology, West Bengal, 25-26th March, 2021.
- Attended a one-week hands-on training programme on Sophisticated Analytical Instrumentation Techniques Basic Research and Development organized by Dibrugarh University, Assam under the STUTI of the DST, Govt. of India, during 24 – 30th August 2022.
- Oral presentation at the National Conference organized by Mizoram University, 25-26th May 2023.