

ABSTRACTS FOR POSTER PRESENTATION

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Development And Stability Evaluation Of Olive Oil Nanoemulsion Using Sucrose Ester

Ahmad M M Eid¹, Rosnani Hasham¹, Mariani Abdul Hamid¹, Farah Diana Ariffin¹, Nagib A.Elmarzugi¹

¹Institute of Bioproduct Development (IBD), Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia.

Abstract

Nanoemulsion is a type of emulsion that consist of fine oil-in-water dispersions, with the droplets covering the size range of 20-200nm. It can be achieved through self-emulsification process. One of the processes is through low energy emulsification method. Olive oil was chosen in this study due to its efficiency in treating skin problem. Pre-emulsion was prepared by mixing oil, sucrose ester and glycerol under heat at 80 °C. After the pre-emulsion was formed, it will be self-emulsified with water under gentle agitation. Olive oil nanoemulsion was prepared using sucrose ester as a surfactant to produce droplets size below 200 nm with low size distribution. The pre-emulsion was very stable when stored at 4 °C. However, it was unstable when stored at 25 °C and 40 °C. Therefore, 4 °C is the ideal storage condition for this pre-emulsion.

Keywords: Nanoemulsion, sucrose ester, Olive oil, Stability, self-emulsification.