

Extended Abstract

Preparation and Characterization of Vegetable Oil-Based Microemulsions [†]

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Microemulsions are thermodynamically stable and transparent systems composed of an aqueous phase, oil, a surfactant, and usually also contain a co-surfactant [1]. They have the capacity to incorporate large quantities of hydrophilic and lipophilic active principles, protecting them from degradative reactions and ensuring delivery of the cosmetic actives [2]. Due to these characteristics, microemulsions are adequate for the delivery of topical cosmetic actives. In order to create microemulsions with dermatocosmetic applications, grape seed oil was used as the oily phase, Tween 80 and plulrol diisostearique CG as the surfactant blend, and ethanol as a co-surfactant for some of the samples. All components are safe for skin and are used as cosmetic ingredients. The obtained systems (Figure 1) were physically characterized based on electrical conductivity, dynamic light scattering, and rheometric measurements.



Figure 1. Appearance of the W IV microemulsions.

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