

Geranyl acetate emulsions: surfactant association structures and emulsion inversion.

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Abstract

Three emulsions of geranyl acetate (GA)-in-water (W) with identical GA/W ratios and varying surfactant (S), Laureth 4, a commercial C(12)EO (4) compound, fractions were investigated for nature and stability. The emulsions with up to 6% surfactant were W/O, as expected with respect to the solubility of the surfactant in the oil. At 10% surfactant, the aqueous phase became the continuous one and the apparent stability of the emulsion was significantly enhanced. Analysis of the phase diagram and experimental evidence showed the high water content emulsion to be a liquid crystal-in-water emulsion; a kind that did not change even at extreme O/W and LC/W ratios.