

Malaysian red palm oil in a surfactant association structure

ABSTRACT

The interlayer spacings of a lamellar liquid-crystalline structure, before and after incorporation of red palm oil, were determined by means of small-angle X-ray diffraction. The results agreed with earlier investigations on refined, bleached, and deodorized palm olein for the anionic host. The cationic host, after addition of red palm oil, showed two features of interest. First, the results showed a drastic decrease of its extrapolated interlayer spacing, and, second, the slope exhibited a value twice that of the host value.

Keyword: Cetyltrimethylammonium bromide; Lamellar liquid crystal; Red palm oil; Small-angle X-ray diffraction; Sodium dodecylsulfate