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Effect of the phospholipid composition on their aggregation in non-polar solvent

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Abstract

The ability to the micelle formation in hexane was studied for the natural phospholipids (PL) in dependence on their concentrations and the exposure duration: Lecithin-standard (I) – the soybean lecithin, Sphingomielin from the bovine brain (II) and L,α -Cephalin from the bovine brain (III). It is shown that PL II and III mainly form micelles of one diameter, which is not in certain change during 1.5 and 3 h for PL III and II correspondingly, while the micelle size for PL I increases 2.3 times during 1.5 h. The non-linear dependence of the micelle diameter on the PL I and II concentration is revealed. Data obtained are evidence for the dependence of the natural PL aggregation process in non-polar solvent on their fraction composition.