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THIOFLAVIN T BEHAVIOR IN LYSOZYME – LIPID SYSTEMS

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The applicability of thioflavin T (ThT) to detection of amyloid-like aggregates formed in membrane environment was evaluated using lysozyme-lipid model system. It was found that ThT is capable of partitioning into lipid bilayers composed of zwitterionic (1-stearoyl-2-oleoyl-*sn*-glycero-3-phosphocholine (SOPC)) and anionic (1-palmitoyl-2-oleoyl-*sn*-glycero-3-phosphoglycerol (POPG)) phospholipids. The ability of ThT to associate non-specifically with lysozyme in its native state was uncovered. These properties of ThT may impose limits on the use of this dye for identification of membrane-induced fibrillar structures.

KEY WORDS: amyloid fibrils, thioflavin T, liposomes, lysozyme