INFLUENCE OF PIPERIDINE CHLORIDES DERIVATIVES ON THERMOTROPIC BEHAVIOUR OF PHOSPHATIDYLCHOLINE AND PHOSPHATIDYLCHOLINE / CHOLESTEROL BILAYERS

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Various amphiphilic quaternary ammonium salts show biological activity. A great number of compounds is known and used as antimicrobial agents. But we are still looking for new compounds that would be more effective and would have less negative interactions with the environment. That is why new compounds - amphiphilic piperidine derivatives - were synthesised. The compounds contain a hydrophobic chain of varying length and a carboxyethyl group.

\[\text{N}^+ \text{C}_2\text{H}_5\text{Cl}^- \quad \text{N}^+ \text{C}_12\text{H}_{25}\text{Cl}^- \quad \text{N}^+ \text{C}_8\text{H}_{17}\text{Cl}^-\]

In this contribution we studied the effect of the above compounds on thermotropic properties of liposomes formed from DPPC and DPPC, containing 2 and 5 mol% of cholesterol, by means of differential scanning calorimetry. As before [Różycka-Roszak and Pruchnik, Z. Naturforsch. 55c (2000) 240, Różycka-Roszak and Pruchnik, Z. Naturforsch. 55c (2000) 753.], in order to enhance the role of counterion-water interactions, the surfactants were added either to the water phase or directly to the lipid phase (a mixed film was formed).