

## STRUCTURAL TRANSITION IN A LIPID–WATER LIQUID SYSTEM

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### S u m m a r y

Small-angle X-ray scattering technique has been used to study multilayer lipid membranes of 1,2-dipalmitoyl-sn-glycero-3-phosphocholine (DPPC) and the 3:1-mixture DPPC/1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (POPC) in excess water. The temperature dependences of the repetition period for lipid bilayers in the temperature range 20–55 °C are obtained. A comparative analysis of the scattering curves obtained for multilayer membranes showed that, below a temperature of 40 °C, there emerges an additional ordering with a repetition period of 66 Å in the lipid mixture, which we associate with the lipid phase separation. A disappearance of the so-called ripple (wave-like) phase of DPPC lipid in the mixture is also observed.