

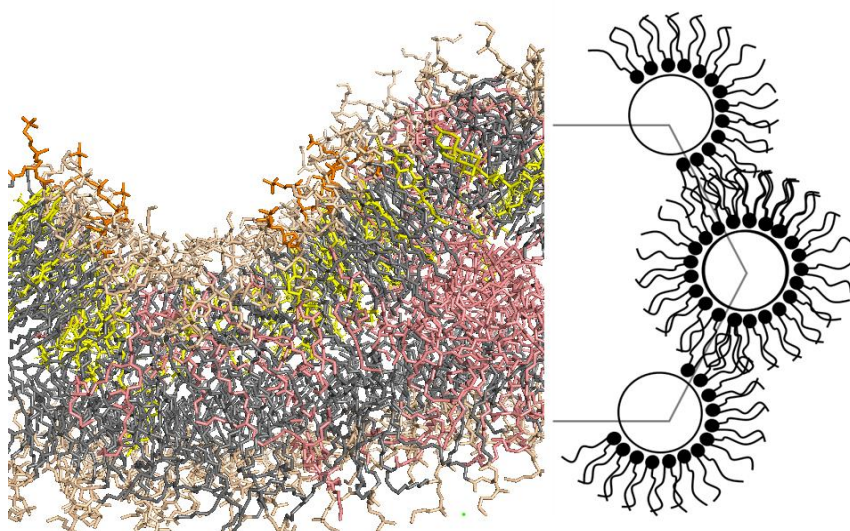
Geometry and phase behaviour of nonlamellar lipids in confined environments

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Lipid confined environments are the basis of many structures both in nature^a and in biotechnologies^b. In both of these cases, non-lamellar lipids bring conformational flexibility required for the system to transition from a planar bilayer to more complex three-dimensional structures – be it a simple curved membrane or a system in the inverted hexagonal or cubic phases. The interplay between the lipid geometry and charge^c is a fundamental property that decides the shape of its molecular assembly, with consequences for various mixtures containing these nonlamellar lipids.



A curved membrane of POPE and nonlamellar lipid, a schematic of a hexagonal phase

References:

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