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【911】Water in soft confinement of lipidic mesophase

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We study water state in lipidic mesophase. First, we investigated water in an unfrozen lamellar phase (*La*). Through the combination of differential scanning calorimetry and dielectric spectroscopy, we understood the crystallization and the dynamics of water in L. At a lower hydration, the nanoconfined water remains in liquid down to -120 ℃. In addition, the phase structure of lipidic mesophase varies depending on the water content and the temperature of the system. We used Fourier transform infrared spectroscopy and dielectric radiation spectroscopy to explore state of water during the phase transition from bicontinuous cubic phases to a reverse hexagonal phase.

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