Séminaire LIONS

Jeudi 30 janvier 2014 *à 11h00, pce. 157, bât. 125*

Liquid Crystalline Polymer Vesicles: Thermotropic Phases in Lyotropic Structures

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In this talk I will present our research work on the liquid crystalline (LC) polymer vesicles (polymersomes), where the thermotropic nematic and smectic phases are displayed in the lyotropic bilayer polymer membrane. LC polymersomes possess the properties of both liquid crystals and polymers, the two essential soft matters. LC polymersomes offer, on the one hand, novel examples of the interplay between the orientational order and the curved geometry of a two dimensional membrane. Spherical, ellipsoidal and tetrahedral vesicles will be discussed. On the other hand, LC polymersomes enable novel design of stimuli-responsive polymersomes using intramolecular conformational transition from nematic to isotropic phase of LC blocks. Photo-responsive polymersome bursting will be highlighted.

References:

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