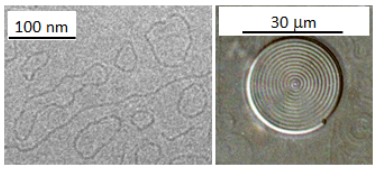
Institut Européen de Chimie et Biologie

I E C B

Cristallization of an oligomeric surfactant: from closed-looped wormlike micelles to spiral patterns of myelin figures

Martin In
Laboratoire Charles Coulomb L2C UMR 5221CNRS - Université Montpellier 2, Montpellier, FRANCE

Higher homolog of short spacer gemini surfactants are prone to form huge wormlike micelles. This is due to an enormous energy penalty to be paid for the formation of hemispherical end-cap. When this get large enough, the formation of a dominant population of closed loops is observed and its size distribution can be analyzed in terms of persistence length. When they are brought below their Kraft temperature, the crystallization path of the surfactants goes through ribbons and myelin formation. The process of dehydration seems to lead to successive steps of winding of the myelin tubules.



Institut Européen de Chimie et Biologie
2, rue Robert Escarpit - 33607 Pessac, France
Tél. : +33(0)5 40 00 30 38 - Fax. : +33(0)5 40 00 22 15
www.iecb.u-bordeaux.fr