

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Block copolymers confined in nano-pores ANDREI ZVELIN-DOVSKY, MARCO PINNA, University of Central Lancashire, Preston, United Kingdom — Using cell dynamics simulation we investigate morphologies block copolymers confined in the nano-pores of various geometries such as spherical cavities, cylinder pores and confinement formed by concentric spheres and cylinders. We examine the influence of molecular composition, parameters of confinement such as curvature and characteristic size, as well as preferential interaction of copolymer blocks with the surfaces. Several block copolymer morphologies are investigated: lamellae, cylinders, spheres and bicontinuous. Deviation from the bulk structure develops under influence of confinement.

Marco Pinna
UCLan

Date submitted: 21 Nov 2008

Electronic form version 1.4