

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Defect structures and coarsening in spherical shells of asymmetric block copolymer systems NICOLÁS GARCÍA, LEOPOLDO R. GÓMEZ, ALDO D. PEZZUTTI, DANIEL A. VEGA, Dep. de Física-IFISUR- Universidad Nacional del Sur. Conicet, MARCELO A. VILLAR, Dep. de Ing. Química-PLAPIQUI- Universidad Nacional del Sur. Conicet — We use a Brazovskii model to numerically investigate the defect structures and coarsening process of spherical shells of asymmetric block copolymers. It was found that the configurations of defects are dictated by the ratio between the radius of the spherical shell and the average lattice constant. For small system sizes most configurations of defects are in good agreement with the results for the Thomson problem and simply exhibit 12 well ordered disclinations. As the size of the system increases, in addition to the 12 disclinations the structure of defects is characterized by a varying number of dislocations arranged in grain boundary scars.

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Date submitted: 28 Dec 2010

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