

1135-35-3033

**Saulo Orizaga\*** (sorizaga@math.duke.edu) and **Karl Glasner**. *Diblock copolymers and their aligning properties due to electric fields.*

The nonlinear partial differential equation describing phase segregation incorporating polymer stretching is studied in the context of the strong segregation limit. This results in a free boundary problem which is analyzed for a physical relevant structure. The instabilities associated with the an electric field and the lamellar structure are discussed and presented. (Received September 26, 2017)