PATRICIA BAUMAN, Purdue University, West Lafayette, IN, USA *Stable Solutions of a Variational Model for Bentcore Liquid Crystals*

We present a nonlinear variational model for bent-core (banana-shaped) liquid crystals which includes energy terms including polarization, smectic and chiral effects, elasticity, and surface tension. We analyze stable solutions in a physically realistic regime involving a free boundary problem for the energy and the existence of a limiting-energy minimizer.