Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Microemulsions in Asymmetric Polymer Blends ALISYN NEDOMA, Univ. of California, Berkeley, MEGAN ROBERTSON, Univ. of Minnesota, NITASH BALSARA, Univ. of California, Berkeley — Microemulsions and lamellar phases have been observed in previous experiments wherein block copolymers are added to blends of immiscible homopolymers. To our knowledge, all of the previous studies are restricted to homopolymers of nearly identical chain lengths with critical volume fractions in the vicinity of 0.5 (symmetric systems). The present study concerns the formation of microemulsions and lamellar phases phases in blends of immiscible polymers with substantial differences in chain lengths and critical volume fractions far removed from 0.5 (asymmetric systems). The characteristics of the block copolymers that enable the creation of these phases will be discussed in the presentation.

Alisyn Nedoma
Univ. of California, Berkeley

Date submitted: 20 Nov 2008 Electronic form version 1.4