

Abstract Submitted
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Partial Miscibility in Copolymer Blends¹ ELIZABETH CLARK,
JANE LIPSON, Dartmouth College — Copolymers can be used to affect the miscibility of otherwise immiscible polymer blends by acting as compatibilizers. To better understand the energetics of these types of systems, we use a simple lattice model to study phase separation in binary copolymer/homopolymer blends. We focus on a copolymer that contains both A and B type monomers and a homopolymer that contains purely A type monomer. An example of a system that we are investigating is polyethylene mixed with either random or alternating poly(ethylene-co-propylene). The sequence effect on miscibility as the copolymer microstructure is varied from random to alternating is investigated as well.

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