**Polydisperse Block Copolymer Melts: Beyond the Schulz-Zimm Distribution** NATHANIEL LYND, Department of Chemical Engineering and the Materials Research Laboratory, University of California, Santa Barbara, MARC HILLMYER, Department of Chemistry, University of Minnesota, MARK MATSEN, Department of Mathematics, University of Reading — Using self-consistent mean field theory, we compared the effects of polydispersity on the phase behavior of block copolymer melts possessing two distinct distributions: the Schulz-Zimm distribution (SZD), and a realistic distribution resulting from a numerical simulation of the kinetics of an equilibrium polymerization (EQD). When the polydispersity indices (PDIs) were matched, the SZD and EQD imparted significant differences in the number of chains pulling free of the interface. This resulted in large differences in domain spacing, but negligible differences in phase boundaries.

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