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Kinetics of micellization for diblock copolymers in selective solvents studied using self-consistent field theory RAGHURAM THIAGARAJAN, DAVID MORSE, Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN — The kinetic barriers to association and dissociation of diblock copolymers in various selective solvents are calculated using self-consistent field theory. The variation of these kinetic barriers for both crew cut as well as hairy micelles are studied. The kinetic barriers are found to be very sensitive to temperature and become prohibitive except in a modest range of temperature near the critical micelle temperature. The dependence of kinetic barriers upon the chain and block lengths, and solvent quality are also studied.

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