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Effect of sequence distribution on copolymer interfacial activity MICHELLE D. LEFEBVRE, RACHEL L. MCSWAIN, CHRISTINE M. DETTMER, JONATHAN R. DAVILA, SONBINH T. NGUYEN, KENNETH R. SHULL, Northwestern University, CHEN XU, RUSSELL J. COMPOSTO, University of Pennsylvania — Interfacial segregation of diblock, gradient, and random copolymers was measured using forward recoil spectrometry. The norbornene-based polymers were synthesized using a ring-opening metathesis polymerization, allowing control over the sequence distribution. Mean field theory accurately describes the distinction between interfacial segregation and the formation of an interfacial wetting layer, but quantitative predictions are complicated for copolymers with a large gradient because of intermolecular variations in the sequence distribution.

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