

Abstract Submitted  
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**Dynamics of interacting edge defects in copolymer lamellae**<sup>1</sup> KARI DALNOKI-VERESS, JOSHUA D. MCGRAW, IAN D.W. ROWE, Department of Physics and Astronomy and the Brockhouse Institute for Materials Research, McMaster University — It is known that terraces at the interface of lamella forming diblock copolymers do not make discontinuous jumps in height. Rather, their profiles are smoothly varying. The width of the transition region between two lamellar heights is typically several hundreds of nanometres, resulting from a balance between surface tension, chain stretching penalties, and the enthalpy of mixing. What is less well known in these systems is what happens when two transition regions approach one another. In this study, we show that time dependent experimental data of interacting copolymer lamellar edges is consistent with a model that assumes a repulsion between adjacent edges. The range of the interaction between edge defects is consistent with the profile width of noninteracting diblock terraces.

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