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Anisotropic Lifshitz-Slyozov Theory MELINDA GILDNER, BENJAMIN VOLLMAYR-LEE, Bucknell University, FAWNTIA FOWLER, Reed College — We study Lifshitz-Slyozov theory for the dilute limit of conserved order parameter coarsening with the addition of an anisotropic surface tension. We calculate the drop shapes and drop size distribution perturbatively in anisotropy strength. We find the $L \sim t^{1/3}$ growth law unchanged with drop shapes that depend only on the scaled drop size. The drop shapes are nonspherical and do not have the equilibrium Wulff shape. The drop size distribution is modified from the isotropic Lifshitz-Slyozov result.

Prefer Oral Session
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