Formation of $^3\text{He}$ droplets in dilute $^3\text{He}$-$^4\text{He}$ solid solutions$^1$ CHAO HUAN, University of Florida, Gainesville, USA, DON CANDELA, University of Massachusetts, Amherst, USA, SUNG KIM, LIANG YIN, JIANG-SHENG XIA, NEIL SULLIVAN, University of Florida, Gainesville, USA — We review the different stages of the formation of $^3\text{He}$ droplets in dilute solid $^3\text{He}$-$^4\text{He}$ solutions. The studies are interesting because the phase separation in isotopic helium mixtures is a first-order transition with a conserved order parameter. The rate of growth of the droplets as observed in NMR studies [1] is compared with the rates expected for homogeneous nucleation followed by a period of coarsening known as Ostwald ripening.


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