Abstract Submitted for the MAR15 Meeting of The American Physical Society

Formation of ³He droplets in dilute ³He-⁴He solid solutions¹ 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 ³He droplets in dilute solid ³He-⁴He 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. [1] C. Huan *et al.*, J. Low Temp. Phys. 162,167 (2011).

¹Work suported by the National Science Foundation - DMR-1303599 and DMR-1157490 (National High Magnetic Field Laboratory)

> Neil Sullivan University of Florida

Date submitted: 14 Nov 2014

Electronic form version 1.4