Abstract Submitted
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Synthesis of RE_9 Mg_{35} Zn_{57} (RE = Gd, Tb, Dy, Ho, Er, and Y) from a metallic flux in 9 tesla magnetic fields THOMAS J. OTT, Los Alamos National Laboratory, SALLY J. TRACY, California Institute of Technology, HEATHER M. VOLZ, JASON C. LASHLEY, JASON C. COOLEY, Los Alamos National Laboratory — We have precipitated RE_9 Mg_{35} Zn_{57} (RE = Gd, Tb, Dy, Ho, Er, Y) quasicrystals from molten metal fluxes in 9 tesla magnetic fields. We have measured the magnetic susceptibility and performed x-ray diffraction measurements on the materials grown in 9 tesla and 0 tesla. We will discuss the effect of growth in field on the magnetic susceptibility and on the crystal structure.

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