

Abstract Submitted
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Vortex instability in molybdenum-germanium superconducting film¹ MANLAI LIANG, MILIND KUNCHUR, University of South Carolina — We studied the high driving force regime of the current-voltage transport response in the mixed state of amorphous molybdenum-germanium (MoGe) superconducting films to the point where the flux flow becomes unstable. The observed nonlinear response conforms with the classic Larkin-Ovchinnikov picture with a quasiparticle energy-relaxation rate dominated by the quasiparticle recombination process. The measured energy relaxation rate was found to have a magnitude and temperature dependence in agreement with theory.

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