Abstract Submitted
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NbN films grown by chemical solution deposition[1] GUIFU ZOU, MENKA JAIN, HONGMEI LUO, S.A. BAILY, T.M. MCCLESKEY, E. BAUER, A.K. BURRELL, Q. JIA, Los Alamos National Lab, MPA TEAM — NbN films were grown on quartz substrate using a chemical solution technique of polymer-assisted deposition for the first time. The precursor films were annealed at different temperatures in ammonia atmosphere. X-ray diffraction and electron microscopy analysis indicated that the films were polycrystalline. Preliminary optical spectroscopy results of these films showed several strong peaks in the visible range that can be attributed to the NbN phase. Wide peaks in the photoluminescence spectrum suggest many defects in these films. The transition temperature (measured from SQUIDs) of these films also will be discussed in this paper.

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