Abstract Submitted for the MAR12 Meeting of The American Physical Society

<sup>17</sup>O and <sup>199</sup>Hg NMR measurements of HgBa<sub>2</sub>CuO<sub>4+y</sub> single crystals<sup>1</sup> A.M. MOUNCE, S. OH, W.P. HALPERIN, Northwestern University, P.L. KUHNS, A.P. REYES, National High Magnetic Field Laboratory, D. XIA, X. ZHAO, University of Minnesota, Jilin University, M. CHAN, L. JI, M. GREVEN, University of Minnesota — The high superconducting transition temperature and the simple tetragonal structure of HgBa<sub>2</sub>CuO<sub>4+y</sub> (Hg1201) makes this material an ideal candidate to study unconventional superconductivity in the cuprates[1]. Nuclear magnet resonance has been performed on Hg1201 single crystals which have been annealed in an <sup>17</sup>O atmosphere to various dopings. Preliminary results of the NMR spectra and relaxation of both <sup>17</sup>O and <sup>199</sup>Hg are presented. Narrow linewidths allow for the resolution of both <sup>17</sup>O lattice sites and a doping dependent <sup>199</sup>Hg spectral splitting[2]. This work is supported by **DOE/BES: DE-FG02-05ER46248** and the NHMFL by NSF and the State of Florida.[1] N. Barišić *et al*, PRB **78**, 054518 (2008) [2] J. Haase *et al*, arXiv:1110.601v1 (2011)

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