Abstract Submitted for the APR08 Meeting of The American Physical Society

Investigation of K-isomers in $^{255}\mathrm{Lr}$ and $^{256}\mathrm{Rf^1}$ H.B. JEPPESEN, I. DRAGOJEVIC, R.M. CLARK, K.E. GREGORICH, M.N. ALI, J.M. ALLMOND, C.W. BEAUSANG, D.L. BLEUEL, J. DVORAK, P.E. ELLISON, P. FALLON, M.A. GARCIA, J.M. GATES, J.P. GREENE, S. GROS, I.Y. LEE, A.O. MACCHIAVELLI, S.L. NELSON, H. NITSCHE, L. STRAVSETRA, M. WIDERKING — Recently, K-isomers have been observed in very heavy nuclei around A~250 ($^{252,254}\mathrm{No}$). The investigation of the decay of K-isomer states in the near super heavy nuclei gives very valuable information on the ordering of single particle orbitals in these nuclei. I would like to discuss our recent results on K-isomers in $^{256}\mathrm{Rf}$ and $^{255}\mathrm{Lr}$. The experiments were performed at the Lawrence Berkeley National Laboratory's 88-Inch Cyclotron and the decay of the isomers were studied at the focal plane of the Berkeley Gas-filled Separator (BGS). The nuclei of interest were produced via the $^{208}\mathrm{Pb}(^{50}\mathrm{Ti}, 2n)^{256}\mathrm{Rf}$ and $^{209}\mathrm{Bi}(^{48}\mathrm{Ca}, 2n)^{255}\mathrm{Lr}$ reactions.

¹This work was supported by the Director, Office of Science, Nuclear Physics, U.S. Department of Energy under contract number DE-AC02-05CH11231.

H.B. Jeppesen

Date submitted: 15 Jan 2008 Electronic form version 1.4