

Abstract Submitted  
for the DNP11 Meeting of  
The American Physical Society

**Commissioning of GRETINA tracking array, testing of delayed coincidence** AARON SHARPE, University of Richmond, C.W. BEAUSANG, University of Richmond, I.Y. LEE, Lawrence Berkeley National Laboratory, GRETINA COLLABORATION — GRETINA is new a gamma-ray tracking array currently being commissioned at LBNL. When complete, GRETINA will consist of seven quad-modules. Each quad-module in turn consists of four large volume 36 fold segmented Ge crystals. The segmentation of the crystals, together with digital pulse processing techniques allows the position of individual gamma-ray interactions in the detector to be determined. As part of the commissioning process, a series of engineering runs was carried out in the spring at LBNL to check various aspects of the detector performance under “battle conditions.” One of these runs involved testing delayed coincidence capability by the measurement of the lifetimes of several high-K isomers in Hafnium-176. Medium/high-spin states in  $^{176}\text{Hf}$  were populated following the  $^{176}\text{Yb}(\alpha,4n)$  reaction at a beam energy of 41 MeV. Data was taken over a two day period using a variety of trigger conditions. Data analysis is ongoing and initially focused on the 1559 keV and 1333 keV isomers. Preliminary results, which are in agreement with the previously accepted lifetimes, will be presented. This work was partly supported by the US Department of Energy under contact number DE- AC02-05CH11231 and grant numbers DE-FG52-06 NA26206 and DE-FG02-05 ER41379.

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Date submitted: 28 Jun 2011

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