Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Preliminary tests of a high performance $LaBr_3$ gamma imager for small animals .[1] JIANGUO QIAN, Applied Science Dept., College of William and Mary, ERIC BRADLEY, Biology Dept. & Applied Science Dept., College of William and Mary, STAN MAJEWSKI, JOHN MCKISSON, VLADIMIR POPOV, JAMES PROFFITT, Detector and Imaging Group, Jefferson Lab, MARGARET SAHA, Biology Dept., College of William and Mary, JONATHAN SUTTON, Physics Dept., College of William and Mary, ANDREW WEISENBERGER, Detector and Imaging Group, Jefferson Lab, ROBERT WELSH, AMIR YAZDI, Physics Dept., College of William and Mary — A novel medical gamma ray imager comprised of an array of four Hamamatsu H9500 position sensitive photomultiplier tubes (PSPMT) coupled directly to a single slab of $LaBr_3$ scintillator has been designed and tested. The phototube-scintillator array, fabricated by Bicron-St. Gobain Inc (France), is the first such device made. A special resistive readout array designed here permits signals from the 256 anode pads in each PSPMT to be read out on only 16 data lines. Preliminary tests of uniformity, sensitivity and resolution will be described along with initial images of mice obtained with this new device.

[1]Research funded in part by the U. S. DOE, The U. S. NIH (Grant EB000458-02).

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Date submitted: 02 Jul 2007 Electronic form version 1.4