

Abstract Submitted  
for the MAR06 Meeting of  
The American Physical Society

**Calibration Of A System For Energy Dependence Study Of Cancer Cell Irradiation** ARIANO MUNDEN, Hampton University, FOR CAMI COLLABORATION — Calibration of individual electron energies and dose distribution exiting a dipole magnet perpendicular at the dispersive plane was performed using a collimated scintillating fiber based detector. The dipole was constructed from two  $5.08 \times 5.08 \times 2.54$  cm<sup>3</sup> permanent magnets separated by a distance of 2 cm and having a maximum field of about 5 kG. A 1 cm diameter collimated electron beam exiting a <sup>90</sup>Sr/Y radioactive with a 25  $\mu$ Ci activity and a 2.28 MeV maximum energy was placed at the entrance face of the magnet. Mapping of the magnetic field was done using a Hall probe with an accuracy of about 2 G. The electron detector consisted of blue shifted scintillating fibers with thicknesses of 1 mm. The setup provides an energy resolution of about 10%. This system will be used to study the differential response of cancer cell irradiation to selected energies. We will present results and discuss the results obtained from this work.

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Date submitted: 22 Nov 2005

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