

Abstract Submitted
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Calibration Of An Active Mammosite Using A Low Activity Sr-90 Radioactive Source JACQUELYN WINSTON, Morgan State University, FOR CAMI COLLABORATION — The latest involvement of the Brachytherapy research group of the medical physics program at Hampton University is in the development of a scintillator fiber based detector for the breast cancer specific Mammosite (balloon device) from Cytac Inc. Recent data were acquired at a local hospital to evaluate the possibility of measuring the dose distribution during breast Brachytherapy cancer treatments with this device. Since sub-millimeter accuracy in position is required, precision of the device relies on the accurate calibration of the scintillating fiber element. As part of a collaboration work, data were acquired for that purpose at Hampton University and subsequently analyzed at Morgan State University. An 8 mm diameter strontium-90 radioactive field source with a low activity of 25 μCi was used along with a dedicated LabView data acquisition system. We will discuss the data collected and address some of the features of this novel system.

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