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Calibration of the Tagger Detectors with GlueX Commissioning Data[1] ALEXANDER BARNES, Univ of Connecticut - Storrs, NATHAN SPARKS, Catholic Univ of America, GLUEX COLLABORATION — The GlueX experiment at Jefferson Lab uses a linearly polarized photon beam to search for mesons with gluonic excitations and measure their spectrum and couplings. This polarized photon beam will be created using a 12 GeV electron beam incident on a 20 μm thick diamond radiator, where it undergoes coherent bremsstrahlung to produce an intensity enhancement in the region of 9 GeV with a linear polarization around 40%. The energy of the photon is inferred by analyzing the post-bremsstrahlung electron energy in the tagging spectrometer. A highly segmented tagging detector called the tagger microscope will intercept the electrons in the region of the coherent peak 8.4-9.0 GeV photon energy. These electrons are incident on a two-dimensional array of scintillating fibers which are read out using multi-photon pixel counters (MPPC). Post-bremsstrahlung electrons outside of the coherent peak region corresponding to photon energies of 3.0-11.8 GeV are incident on a hodoscope of plastic scintillators which are read out by photomultiplier tubes (PMT). The calibration results for the tagger microscope and hodoscope using commissioning data will be presented.

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