

Abstract Submitted
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Photon Detection System for Collinear Laser Spectroscopy at NSCL SOPHIA VINNIKOVA, Michigan State University, NSCL, CHRISTOPHER GEPPERT, University of Mainz, GSI, MICHAEL HAMMEN, University of Mainz, ANDREW KLOSE, Michigan State University, NSCL, JORG KRAMER, WILFRIED NORTERSHAUSER, University of Mainz, GSI, PAUL MANTICA, Michigan State University, NSCL, KEI MINAMISONO, NSCL, ANTHONY SCHNEIDER, Michigan State University, NSCL — A photon detection system has been designed and fabricated for the BEam COoler and COLLinear LAsEr spectroscopy (BECOLA) facility at NSCL to work over the wavelength ranges of 350-500 nm and 700-1000 nm. The detection system is based on a design from the University of Mainz and relies on an ellipsoidal reflector to focus fluorescence from the atom/ion beam passing through the first focal point to a photomultiplier tube located at the second focal point. An aperture system will be used to reduce background caused by stray laser light. Ray trace simulations and measurement of stray light characteristics will be discussed. This research is funded in part by NSF grant PHY 06-06007.

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