

Abstract Submitted  
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**High Energy Electron Detectors on Sphinx**<sup>1</sup> J.R. THOMPSON, Consultant, San Diego, CA, A. PORTE, F. ZUCCHINI, H. CALAMY, G. AURIEL, Centre d'Etudes de Gramat, 46500 Gramat, France, P.L. COLEMAN, Consultant, Philomath, OR, F. BAYOL, B. LALLE, ITHPP, 46500 Thegra, France, M. KRISHNAN, K. WILSON, Alameda Applied Sciences Corp., San Leandro, CA — Z-pinch plasma radiation sources are used to dose test objects with K-shell ( $\sim 1-4\text{keV}$ ) x-rays. The implosion physics can produce high energy electrons ( $> 50\text{keV}$ ), which could distort interpretation of the soft x-ray effects. We describe the design and implementation of a diagnostic suite to characterize the electron environment of Al wire and Ar gas puff z-pinches on Sphinx.<sup>2</sup> The design used ITS<sup>3</sup> calculations to model detector response to both soft x-rays and electrons and help set upper bounds to the spurious electron flux. Strategies to discriminate between the known soft x-ray emission and the suspected electron flux will be discussed.

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<sup>2</sup>H.Calamy et al, "Use of microsecond current prepulse for dramatic improvements of wire array Z-pinch implosion," Phys Plasmas 15, 012701 (2008)

<sup>3</sup>J.A.Halbleib et al, "ITS: the integrated TIGER series of electron/photon transport codes-Version 3.0," IEEE Trans on Nuclear Sci, 39, 1025 (1992)

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