Abstract Submitted
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Emissive Probe in the HelCat Linear Plasma Device[1] R. MAGALLANES, A. SANCHEZ, R. COMPEAU, M. GILMORE, University of New Mexico — Langmuir probes are often used to measure plasma potential, but are prone to problems, including fluctuations of ion and electron density, finite mean-free path and spatial variation of plasma parameters. Emissive probes are able to overcome some of these problems and can be used to verify measurements made with Langmuir probes, but they also have many other uses, including lighting in a dark vessel and creating a localized plasma beam which may be used to map lines of force and align probes. This poster discusses the construction of the probe and associated electronics, uses of emissive probes and comparisons of emissive probe and Langmuir probe measurements in the HelCat Linear Plasma Device, limitations of emissive probes, and details of future uses and expectations of the probe.

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