

Abstract Submitted  
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**Focused Aerosol Targets for Z-pinch Loads<sup>1</sup>** L.M. GUNDERSON, D. RUIZ, N.J. FISCH, M.J. HAY, E. MERINO, E.J. VALEO, S. WISSEL, S.J. ZWEBEN, Princeton Plasma Physics Laboratory — Aerodynamic focusing of aerosols might be used as the load in Z-pinch devices, offering an alternative to wire arrays or gas puffs. Motivations for investigating this method include: better axial uniformity in the material profile, tailoring the radial density and material profile with fewer physical alterations to the machine, and more versatility in load material. In Z-pinches for K-shell X-ray sources, aerosols of metals, such as Aluminum, might be used to compare the dynamics of diffusely distributed loads (similar to gas puffs) versus wire arrays of the same material, which are suspected to be more subject to seeding Magneto-Rayleigh-Taylor instabilities.

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