Abstract Submitted
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Preliminary Results on Focusing of High-Density Aerosols[1] D.E. RUIZ, L. GUNDERSON, N.J. FISCH, M.J. HAY, E. MERINO, E.J. VALEO, S. WISSEL, S. ZWEBEN, Princeton Plasma Physics Laboratory — High-density micron-sized particle aerosols might form the basis for a number of plasma applications in which a certain shaped material target might be quickly ionized to form a similarly shaped plasma. While the focusing of low-density aerosols has long been studied, primarily for forensic applications, the aerodynamic focusing of high-density aerosols has received relatively little attention. A relatively simple experimental device was built to study the properties of high-density aerosol focusing for 1-micron silica spheres. Preliminary results show focusing at low densities, whereas at higher densities the focusing changes. There also appears to be a density beyond which focusing does not occur.

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Daniel Ruiz
Princeton Plasma Physics Laboratory

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