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OMEGA Supersonic Gas-Jet Target Characterization A. HANSEN, D. HABERBERGER, J.L. SHAW, D.H. FROULA, Laboratory for Laser Energetics, U. of Rochester — A supersonic gas-jet target system has been characterized using a Mach–Zehnder interferometer, allowing for the study of the gas dynamics during the opening and closing of the valve. Gas-jet targets provide uniform plasmas with flexibility in size and density while also offering excellent diagnostic access to the plasma. The gas jet is the first component in the development of a new laser–plasma interaction platform to be implemented on the OMEGA Laser System. The platform will use a tunable UV laser from OMEGA EP, known as the tunable OMEGA port 9 beam, to facilitate the study of cross-beam energy transfer and the associated mitigation strategies. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

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