

Abstract Submitted  
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**Accretion Shocks on Young Stars: A Laboratory-Astrophysics Investigation** R.P. YOUNG, University of Michigan — We intend to present results of a laboratory-astrophysics investigation of accretion shocks at the surface of young stars. We have scaled a stellar accretion shock to an OMEGA experiment by creating a plasma jet (representing the accreting material) and colliding it with a solid block (representing the surface of the young star). Magnetic fields are thought to play crucial role in this phenomenon, and therefore we conducted our experiments with imposed magnetic fields of 0 T, 3 T and 7 T. This work is funded by the U.S. Department of Energy, through the NNSA-DS and SC-OFES Joint Program in High-Energy-Density Laboratory Plasmas, grant number DE-NA0001840, and the National Laser User Facility Program, grant number DE-NA0000850, and through the Laboratory for Laser Energetics, University of Rochester by the NNSA/OICF under Cooperative Agreement No. DE-FC52-08NA28302.

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