

Abstract Submitted
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A new pulsed power facility for isentropic compression experiments S.N. BLAND, K.H. KWEK, S.J.P. STAFFORD, J.B.R. WINTERS, G.C. BURDIAK, J. SKIDMORE, S.V. LEBEDEV, Imperial College London, R.B. SPIELMAN, formerly of Ktech Corporation — A new pulsed power facility has been commissioned at Imperial College as part of the Institute for Shock Physics. The facility, based around the 2MA MACH - Mega Ampere Compression and Hydrodynamics - generator, is dedicated towards exploring ramp loading of material samples with pressure up to ~ 100 KBar. Here we present details of the facility, including its suite of diagnostics. Initial strip line experiments will be discussed, including simulations of the strip line behavior. Finally we will discuss future work on the machine, including novel load ideas to significantly increase pressures, new diagnostics and expansion of the facility to include external high magnetic fields and intense laser pulses. This work was supported by the Institute of Shock Physics, funded by AWE Aldermaston, and the EPSRC.

Simon Bland
Imperial College London

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