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Line-VISAR diagnostics for isentropic compression experiments at the LLNL two-stage gas gun[1] KLAUS WIDMANN, JEFFREY NGUYEN, LYNN JAMES, DAVID ERSKINE, REED PATTERSON, GILBERT COLLINS, LEON BERZINS, Lawrence Livermore National Laboratory — The spatial uniformity and flatness of a launched gradient- density flyer plate is of utmost importance for a successful implementation of isentropic compression experiments. A Mach-Zehnder based line VISAR instrument, named B-VISAR, has been fielded at Livermore's large two-stage gas gun facilty. With the B-VISAR it was possible to record the time history of the shock breakout along a 10-mm line at the target surface. We report results of this proof-of-principle experiment and provide some comparison with simultaneously conducted point VISAR measurements.

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