

Abstract Submitted
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High-Rate Characterisation of Hexanitrostilbene ROBERT CLARIDGE, QinetiQ Ltd, Fort Halstead, Sevenoaks, Kent, TN14 7BP, UK, ADAM PARKER, WILLIAM PROUD, University of Cambridge, Madingley Road, Cambridge, CB3 0HE, UK — Hexanitrostilbene (HNS) is a nitro-aromatic insensitive secondary explosive currently used in a number of insensitive munitions (IM) applications and under consideration for several others. The physical behavior of HNS is therefore important for the development of safe and reliable weapons systems. As part of a comprehensive suite of shock characterisation experiments, one-dimensional plate impact experiments have been performed on HNS IV at two different densities. The unreacted Hugoniot curve was established at each density and the results compared to those reported in the literature. The data obtained from these experiments will assist in the modelling of ignition and growth within HNS based explosives systems.

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