

Abstract Submitted
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Modelling the Equation of State of a Graded Density Impactor

GEOFFREY COX, JOHN MAW, AWE — There is a requirement for off-Hugoniot data to validate material models. One technique is to use projectiles with graded shock impedance layers in a gas gun to impact a target and apply a ramp loading. To accurately design a shock profile to be applied to the target the impactor should be modelled. This also provides an assessment of whether lateral rarefactions will hinder the experiment, and increases confidence in the analysis of the results obtained. This talk considers several methods for calculating the equation of state of particulate mixtures for application to the modelling of graded density impactors.

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