

Abstract Submitted
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The Shock Induced Equation of State of Two Ferroelectric Ceramics D. DEAS, AWE, J.C.F. MILLETT, Cranfield University, N.K. BOURNE, University of Manchester — Manganin stress gauges have been used to determine the Hugoniot of two ferroelectric ceramics, lead zirconium titanate (PZT) and a similar material modified with tin (PSZT). Comparison with previously published data shows close agreement between our results for PZT and previously published results. The transition between elastic and inelastic behaviour has also been determined, and again shows close agreement with previous data. In the case of PSZT, while the Hugoniot in terms of shock stress is similar to PZT, the variation of the wave velocity with particle velocity shows an overall increase in contrast with PZT where the opposite is true.

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