

Abstract Submitted  
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**Shock compression of AD95 alumina**<sup>1</sup> J.X. PENG, National Key Laboratory of Shock Wave and Detonation Physics, Institute of Fluid Physics, P. O. Box 919-102, Mianyang, Sichuan 621900, P R China, C.M. HU, Z.F. SUN, P. LI, H.L. HE, NATIONAL KEY LABORATORY OF SHOCK WAVE AND DETONATION PHYSICS TEAM — The continuum dynamic response of AD95 alumina under shock compression has been investigated. Symmetry planar impact coupling with velocity interferometry was used to measure the shock-release wave profiles over the stress range of 20-60 GPa. These results show that an elastic-plastic double wave structure still exists in AD95 alumina. Analysis indicates that, instead of a linear relationship, the relation between particle-velocity and shock-velocity agrees well with a quadratic equation. The Hugoniot elastic limit and spall strength have been obtained as well in these stress range.

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