

Abstract Submitted
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Multiphase Equation of State for Gallium SCOTT CROCKETT,
LANL — A recently developed multiphase equation of state for gallium will be used to illustrate the sensitivity of isentropic and shock compression results using different initial conditions. From ambient conditions, the equation of state predicts the unusual phenomenon of spontaneous spreading of a compression wave due to a sudden drop in the bulk modulus from the Ga I to liquid phase transition. The gallium multiphase equation of state has three solid phases and a liquid phase. We will also explore the effects of neglecting one of the solid phases, to simulate metastability.

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