

Abstract Submitted  
for the SHOCK05 Meeting of  
The American Physical Society

**Effects of Annealing and Preheating on the Impact Response of Selected Braze Materials**<sup>11</sup> J.L. WISE, S.C. JONES, C.A. HALL, W.D. REINHART, R.J. HICKMAN, Sandia National Laboratories, J.W. GLUTH, Ktech Corporation — A series of gas-gun experiments has probed the impact response of six different braze alloys: Nicusil 3, Nicoro + titanium (98/2 wt%), copper + gold (65/35 wt%), copper + gold (50/50 wt%), silver zirconate, and Cusil. Velocity interferometer data acquired during this investigation has been analyzed to reveal details of the time-resolved shock/release and spall behavior of these materials. As-received and annealed samples of each alloy were tested under both ambient (room temperature) and preheated (100°C) initial conditions. The present data have been evaluated to determine the influences of annealing and preheating on the dynamic yield strength (i.e., Hugoniot Elastic Limit) and spall strength.

<sup>1</sup>Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under Contract DE-AC04-94AL85000.

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Date submitted: 08 Apr 2005

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