

Abstract Submitted
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Temporal profiles of explosively-generated pressures in solids measured by an optical fiber-based gauge JEREMY MONAT, JOEL CARNEY, V. WHITLEY, G. PANGILINAN, NAVSEA Indian Head — A new gauge is being developed and calibrated to measure pressures generated from explosives as a function of time in solids where traditional gauges are not applicable. A laser-pumped optical fiber-based gauge was embedded in Modified Gap Test cylinders. The gauge responded to pressure and showed other features likely due to additional interfaces beyond the fiber tip. Since the temporal profile of the pressure is not well known, hydrocode and ray-tracing modeling are being used to understand the results. The gauge shows promise for time-resolving explosively-generated shock pressures in solids.

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